PIONEER
The Art of Entertainment

Service Manual

ORDER NO.
ARP2887

STEREO RECEIVER

SX-404RDS
SX-304RDS
SX-254R

- **Refer to the service manual ARP2859 for SX-403RDS /HEWZXK and SX-303RDS/HEWZXK.**

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model			Power Requirement	The voltage can be converted by the following method.
	SX-404RDS	SX-304RDS	SX-254R		
HEXK	○	○	○	AC 220-230V	AC240V, *
HBWXK	—	○	—	AC230V	AC220-230V, *
HEWZXK	○	○	○	AC220-230V	AC240V, *

* : Alter the wiring of the Power-supply block at the primary winding of Power-transformer referring to the "Line Voltage Selection" described in Service Manual.

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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

● SX-404RDS/HEXK, HEWZXK, SX-304RDS/HEXK, HBWXK AND HEWZXK

SX-404RDS/HEXK, HEWZXK, SX-304RDS/HEXK, HBWXK, HEWZXK and SX-403RDS/HEWZXK have the same construction except for the following :

Mark	Symbol & Description	Part No.						Remarks
		SX-403RDS /HEWZXK	SX-404RDS		SX-304RDS			
			HEXK	HEWZXK	HEXK	HBWXK	HEWZXK	
NSP	AF Complex Assy	AWK1820	AWK7163	AWK7163	AWK7160	AWK7159	AWK7160	
	AF Assy	AWK5491	AWZ7677	AWZ7677	AWZ7674	AWZ7673	AWZ7674	
	FRONT Assy	AWZ5489	AWZ7668	AWZ7668	AWZ7668	AWZ7668	AWZ7668	
	VR Assy	AWZ5502	AWZ7728	AWZ7728	AWZ7728	AWZ7728	AWZ7728	
	RDS Assy	AWZ5479	AWZ7679	AWZ7679	AWZ7679	AWZ7679	AWZ7679	
	Hinge Button	AAD2534	AAD2534	AAD2534	AAD2533	AAD2533	AAD2533	
⚠	Fuse (T2A/250V, FU1)	AEK – 511	AEK – 511	AEK – 511	Not Used	Not Used	Not Used	
	Fuse (T1.6A/250V, FU1)	Not Used	Not Used	Not Used	AEK – 510	AEK – 510	AEK – 510	
	Front Panel	AMB2222	AMB7196	AMB7196	AMB7197	AMB7197	AMB7197	
	Rear Panel	ANC2213	ANC7192	ANC7192	ANC7191	ANC7191	ANC7191	
NSP	Radiator	ANH1475	ANH1475	ANH1475	ANH1476	ANH1476	ANH1476	
⚠	Power Transformer	ATS1544	ATS1544	ATS1544	ATS1543	ATS1543	ATS1543	
⚠	Transistor (Q3, Q4)	2SA1302	2SA1302	2SA1302	2SA1264N	2SA1264N	2SA1264N	
⚠	Transistor (Q1, Q2)	2SC3281	2SC3281	2SC3281	2SC3181N	2SC3181N	2SC3181N	
⚠	AC Power Cord	ADG1135	ADG1135	ADG1135	ADG1135	ADG1162	ADG1135	*1
⚠	Fuse (5A/250V)	Not Used	Not Used	Not Used	Not Used	AEK1046	Not Used	
	Serial Sheet	AAX1523	Not Used	AAX1523	Not Used	Not Used	AAX1523	
	Shield Plate	ANK1494	Not Used	Not Used	Not Used	Not Used	Not Used	
	FM Antenna Assy	ADH1019	ADH7001	ADH7001	ADH7001	ADH7001	ADH7001	
NSP	Battery (R6P, AA)	AEX – 101	AEX7001	AEX7001	AEX7001	AEX7001	AEX7001	
	Pad Side A	AHA2009	AHA7046	AHA7046	AHA7046	AHA7046	AHA7046	
	Pad Side B (L)	AHA2010	AHA7047	AHA7047	AHA7047	AHA7047	AHA7047	
	Pad Side B (R)	AHA2011	AHA7066	AHA7066	AHA7066	AHA7066	AHA7066	
	Sub Pad	Not Used	AHA7067	AHA7067	AHA7067	AHA7067	AHA7067	
	Packing Case	AHD2719	AHD7123	AHD7123	AHD7124	AHD7124	AHD7124	
	Loop Antenna Assy	ATB1011	ATB7001	ATB7001	ATB7001	ATB7001	ATB7001	
	Remote Control Unit (CU-SX087)	AXD1397	Not Used	Not Used	Not Used	Not Used	Not Used	
	Remote Control Unit (CU-SX092)	Not Used	AXD7051	AXD7051	AXD7051	AXD7051	AXD7051	
	Operating Instructions (German)	ARC1480	Not Used	Not Used	Not Used	Not Used	Not Used	
	Operating Instructions (English/ French/German/Italian/Dutch/ Swedish/Spanish/Portuguese)	Not Used	ARE7029	Not Used	ARE7029	Not Used	Not Used	
	Operating Instructions (English)	Not Used	Not Used	Not Used	Not Used	ARB7030	Not Used	
	Operating Instructions (German)	Not Used	Not Used	ARC7046	Not Used	Not Used	ARC7046	
	Speaker Terminal 8-P	Not Used	AKE1011	AKE1011	AKE1011	AKE1011	AKE1011	

*1: For AC power cord (ADG1162)

● FRONT ASSY

AWZ7668 and AWZ5489 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5489	AWZ7668	
	D821	AEL1148	AEL1099	
	IC300	NJM4558D	Not Used	
	R317, R318	RD1/8PM331J	RD1/8PM391J	
	R321, R322	RD1/8PM821J	RD1/8PM102J	
	R327, R328	RD1/8PM823J	RD1/8PM104J	
	R341, R342	RD1/8PM332J	RD1/8PM272J	
	R823	RD1/8PM562J	RD1/8PM472J	
	R825	RD1/4PM221J	RD1/8PM221J	
	Cable Holder	Not Used	AKT1007	

● VR ASSY

AWZ7728 and AWZ5502 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5502	AWZ7728	
	C361	CEAS470M16	CEAS470M25	
	R361	RD1/8PM303J	RD1/8PM333J	
	R362	RD1/8PM183J	RD1/8PM223J	

● AF ASSY

AWZ7677, AWZ7674, AWZ7673 and AWZ5491 have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		AWZ5491	AWZ7677	AWZ7674	AWZ7673	
	C253, C256, C603, C711	CEAS101M16	CEAS101M25	CEAS101M25	CEAS101M25	
	C501, C502,	CEEA2R2M50	CEEA2R2M50	CEAS2R2M50	CEAS2R2M50	
	C520	CEXA101M25	CEXA101M25	CEAS101M25	CEAS101M25	
	C521, C522	CEEA101M16	CEEA101M16	CEAS101M25	CEAS101M25	
	C543, C544	CEAS2R2M50	CEAS2R2M50	Not Used	Not Used	
	C701, C702	ACH1265	ACH1265	ACH1105	ACH1105	
	C708, C754	ACG1002	ACG1054	ACG1054	ACG1054	
	C714	CFTXA104J50	CKCYF473250	CKCYF473250	CKCYF473250	
	C753	CEAS470M10	CEAS470M25	CEAS470M25	CEAS470M25	
	CN302	KM200IA12	KM200IA9	KM200IA9	KM200IA9	
	CN700	AKP1132	AKP1132	AKP1132	AKP1133	
	CN8108	AKB1127	AKB7022	AKB7022	AKB7022	
	D701	D5SB20F	D5SB20F	D3SBA20 (B)	D3SBA20 (B)	
	IC201, IC253	UPC4570C	UPC4570C	NJM4558D	NJM4558D	
	L701, L702	LAU070J	SAU070J	Not Used	Not Used	
	R213 – R216, R219, R220, R223, R224	RD1/8PM331J	RD1/8PM391J	RD1/8PM391J	RD1/8PM391J	
	R231, R232	RD1/8PM563J	RD1/8PM683J	RD1/8PM683J	RD1/8PM683J	
	R239, R240	RD1/8PM224J	RD1/8PM104J	RD1/8PM104J	RD1/8PM104J	
	R501, R502	RD1/8PM561J	RD1/8PM681J	RD1/8PM681J	RD1/8PM681J	
	R521, R522	RD1/4PM911J	RD1/2PM911J	RD1/2PM102J	RD1/2PM102J	
	R523, R524	RD1/4PM104J	RD1/2PM104J	RD1/2PM104J	RD1/2PM104J	
	R543, R544	RD1/8PM911J	RD1/8PM911J	RD1/8PM102J	RD1/8PM102J	
	R606	RD1/8PM154J	RD1/8PM104J	RD1/8PM104J	RD1/8PM104J	
	R609	RD1/4PM123J	RD1/2PM123J	RD1/2PM123J	RD1/2PM123J	
	R701	RD1/4PM302J	RD1/8PM272J	RD1/8PM272J	RD1/8PM272J	
	R955, R956	RD1/8PM332J	RD1/8PM472J	RD1/8PM472J	RD1/8PM472J	
	R958	RD1/8PM122J	RD1/8PM152J	RD1/8PM152J	RD1/8PM152J	
	RY561	ASR – 112	ASR – 112	ASR1035	ASR1035	
	RY751	ASR1044	ASR1027	ASR1027	ASR1027	
	Pin Jack 6P	AKB1121	AKB7012	AKB7012	AKB7012	
	Speaker Terminal 8-P	AKE111	Not Used	Not Used	Not Used	

● AF ASSY

AWZ7671 and AWZ5487 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5487	AWZ7671	
	C235, C236, C520, C603, C711	CEAS101M16	CEAS101M25	
	C521, C522	CEAS101M16	CEAS470M25	
	C541	CCPUSL470J50	Not Used	
	C542	CCCSL100D50	Not Used	
	C701, C702	ACH1105	ACH1266	
	C708, C754	ACG1002	ACG1054	
	C714	CFTXA104J50	CKCYF473Z50	
	C753	CEAS470M10	CEAS470M25	
	C951	CKDYF103Z50	Not Used	
	CN302	KM200IA12	Not Used	
	CN8108	AKB1127	AKB7022	
	D701	D3SBA20	D3SBA20	
	Q951	2SC2668	Not Used	
	R213 – R216, R219, R220, R223, R224	RD1/8PM331J	RD1/8PM391J	
	R231, R232	RD1/8PM563J	RD1/8PM683J	
	R239, R240	RD1/8PM224J	RD1/8PM104J	
	R501, R502	RD1/8PM561J	RD1/8PM681J	
	R521, R522	RD1/4PM102J	RD1/2PM122J	
	R523, R524	RD1/4PM104J	RD1/2PM104J	
	R541, R542	RD1/8PM104J	Not Used	
	R543, R544	RD1/8PM102J	Not Used	
	R606	RD1/8PM154J	RD1/8PM104J	
	R701	RD1/4PM302J	RD1/8PM272J	
	R706, R707	RS2LMF272J	RS2LMF222J	
	R951	RD1/8PM221J	Not Used	
	R952	RD1/8PM221J	Not Used	
	R953	RD1/8PM472J	Not Used	
	R955, R956	RD1/8PM332J	RD1/8PM472J	
	R958	RD1/8PM122J	RD1/8PM152J	
	RY751	ASR1044	ASR1027	
	Pin Jack 6P	AKB1121	AKB7012	

● RDS ASSY

AWZ7679 and AWZ5479 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5479	AWZ7679	
	CN901	KP200IA12L	KP200IA9L	
	Q901	2SA933S	2SC1048	
	Q903	2SC1740S	2SC2458	

● SX-254R/HEXK AND HEWZXK

SX-254R/HEXK, HEWZXK and SX-303RDS/HEWZXK have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		SX-303RDS /HEWZXK	SX-254RDS		
			HEXK	HEWZXK	
NSP	AF Complex Assy	AWK1818	AWK7157	AWK7157	
	AF Assy	AWZ5487	AWZ7671	AWZ7671	
	FRONT Assy	AWZ5485	AWZ7667	AWZ7667	
	VR Assy	AWZ5486	AWZ7727	AWZ7727	
	RDS Assy	AWZ5479	Not Used	Not Used	
	FL Panel	AAK2556	AAK7149	AAK7149	
⚠	Fuse (T1.6A/250V, FU1)	AEK – 510	Not Used	Not Used	
⚠	Fuse (1.25A/250V, FU1)	Not Used	AEK – 509	AEK – 509	
	Front Panel	AMB2226	AMB7195	AMB7195	
	Rear Panel	ANC2164	ANC7193	ANC7193	
NSP	Radiator	ANH1476	ANH1477	ANH1477	
⚠	Power Transformer	ATS1543	ATS1542	ATS1542	
	Nut	Not Used	NK90FUC	NK90FUC	For VR Assy
	Serial Sheet	AAX1523	Not Used	AAX1523	
	FM Antenna Assy	ADH1019	ADH7001	ADH7001	
NSP	Battery (R6P, AA)	AEX – 010	AEX7001	AEX7001	
	Pad Side A	AHA2009	AHA7046	AHA7046	
	Pad Side B (L)	AHA2010	AHA7047	AHA7047	
	Pad Side B (R)	AHA2011	AHA7066	AHA7066	
	Sub Pad	Not Used	AHA7067	AHA7067	
	Packing Case	AHD2720	AHD7125	AHD7125	
	Loop Antenna Assy	ATB1011	ATB7001	ATB7001	
	Remote Control Unit (CU-SX087)	AXD1397	Not Used	Not Used	
	Remote Control Unit (CU-SX091)	Not Used	AXD7050	AXD7050	
	Battery Cover	AZA7031	AZN2249	AZN2249	
	Operating Instructions (German)	ARC1480	Not Used	Not Used	
	Operating Instructions (English/ French/German/Italian/Dutch/ Swedish/Spanish/Portuguese)	Not Used	ARE7030	Not Used	
	Operating Instructions (German)	Not Used	Not Used	ARC7047	
⚠	Transistor (Q3, Q4)	2SA1264N	2SA1263N	2SA1263N	
⚠	Transistor (Q1, Q2)	2SC3181N	2SC3180N	2SC3180N	

● FRONT ASSY

AWZ7667 and AWZ5485 have the same construction except for the following:

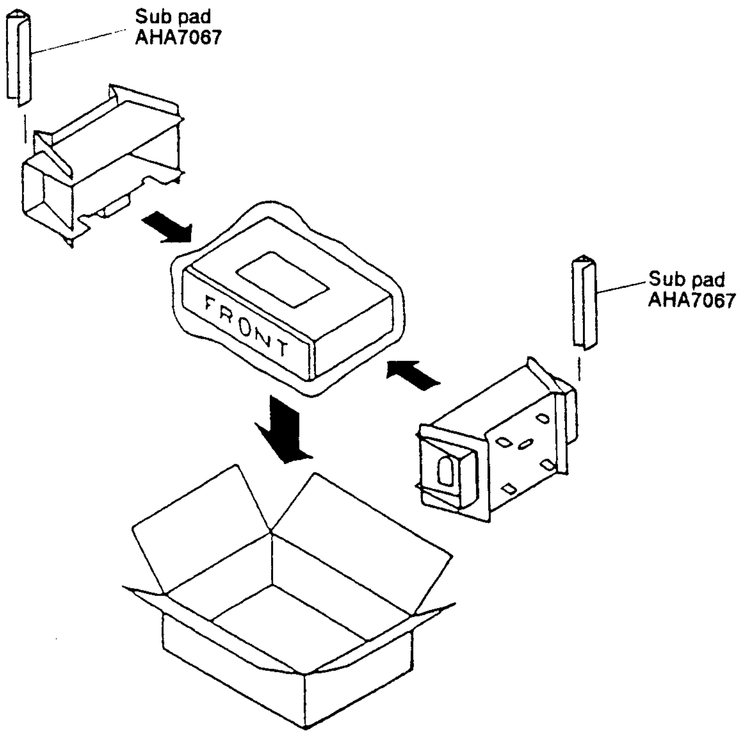
Mark	Symbol & Description	Part No.		Remarks
		AWZ5485	AWZ7667	
	D821	AEL1148	AEL1099	
	R317, R318	RD1/8PM331J	RD1/8PM391J	
	R321, R322	RD1/8PM821J	RD1/8PM102J	
	R327, R328	RD1/8PM823J	RD1/8PM104J	
	R341, R342	RD1/8PM332J	RD1/8PM272J	
	R823	RD1/8PM562J	RD1/8PM472J	
	R825	RD1/4PM221J	RD1/8PM221J	

● VR ASSY

AWZ7727 and AWZ5486 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5486	AWZ7727	
	C361	CEAS470M16	CEAS470M25	
	R361	RD1/8PM303J	RD1/8PM333J	
	R362	RD1/8PM183J	RD1/8PM223J	

● PACKING



2. SCHEMATIC AND PCB DIAGRAMS

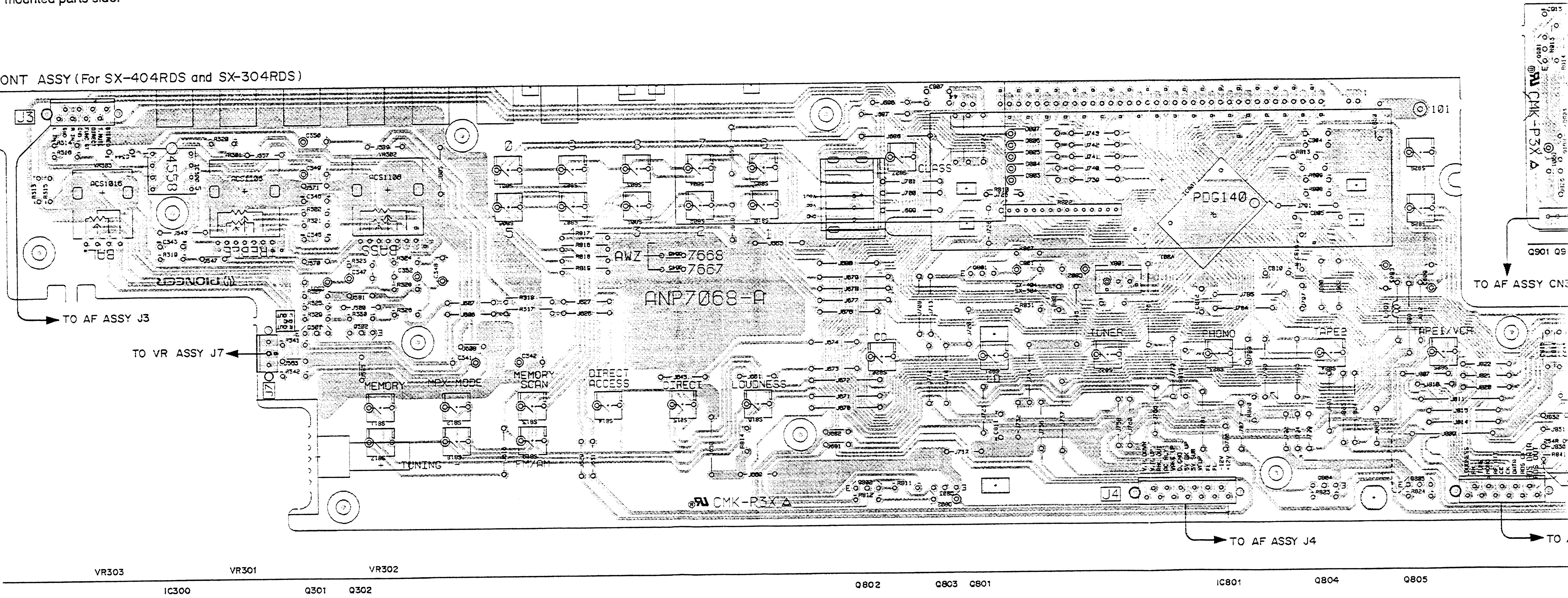
2-1. FRONT ASSY, VR ASSY AND RDS ASSY

PCB-1

- This diagram is viewed from the mounted parts side.

Note :
PCB diagrams of FRONT ASSY and VR ASSY for SX-254R, refer to the SX-303RDS service manual.

FRONT ASSY (For SX-404RDS and SX-304RDS)


RDS A
J3
ACS1016
ACS1106
ACS1106
4558
BAL
TREBLE
BASS
PIONEER
TO AF ASSY J3
TO VR ASSY J7
J7
MEMORY
MPX MODE
MEMORY SCAN
DIRECT ACCESS
DIRECT
LOUDNESS
TUNING
FM/AM
AWZ 7668
7667
ANP7068-A
CLASS
PDG140
101
CD
TUNER
PHONO
TAPE2
TAPE1/VCR
CMK-P3X
J4
TO AF ASSY J4
TO AF ASSY CN3
Q901
TO
VR303
VR301
VR302
IC300
Q301
Q302
Q802
Q803
Q801
IC801
Q804
Q805

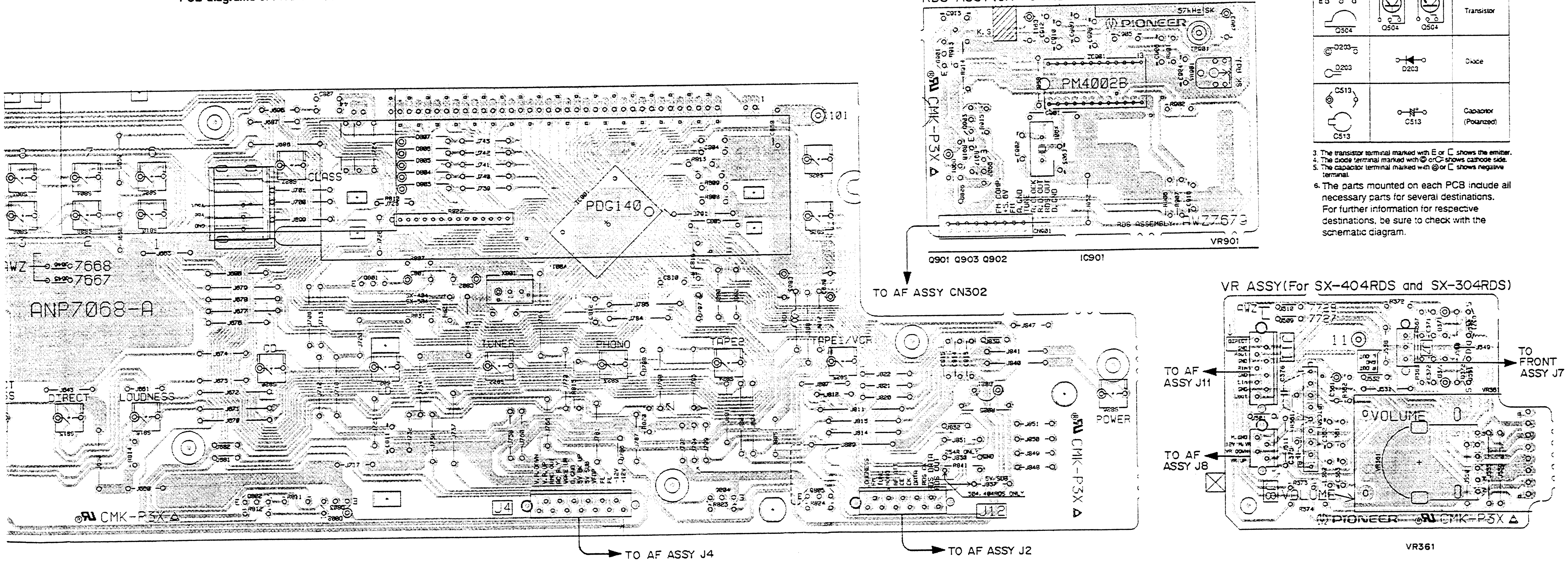
PCB-1F

Note :
PCB diagrams of FRONT ASSY and VR ASSY for SX-254R, refer to the SX-303RDS service manual.

NOTE FOR PCB DIAGRAMS.
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
E Q504 Q504	Q504 Q504	Transistor
D203 D203	D203	Diode
C513 C513	C513	Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with © or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.
6. The parts mounted on each PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.


RDS ASSY(SX-404RDS and SX-304RDS only)
57kHz SK
PIONEER
K. S
PM4002B
CMK-P3X
RDS ASSEMBLY AWZ7673
VR901
TO AF ASSY CN302
ANP7068-A
AWZ 7668
7667
PDG140
101
CLASS
CD
TUNER
PHONO
TAPE2
TAPE1/VCR
DIRECT
LOUDNESS
POWER
J4
J12
CMK-P3X
304, 404RDS ONLY
TO AF ASSY J4
TO AF ASSY J2
VR ASSY(For SX-404RDS and SX-304RDS)
AWZ 7726
7727
11
VOLUME
VOLUME
VR361
PIONEER
CMK-P3X
TO FRONT ASSY J7
TO AF ASSY J11
TO AF ASSY J8

Q901 Q903 Q902 IC901

VR361

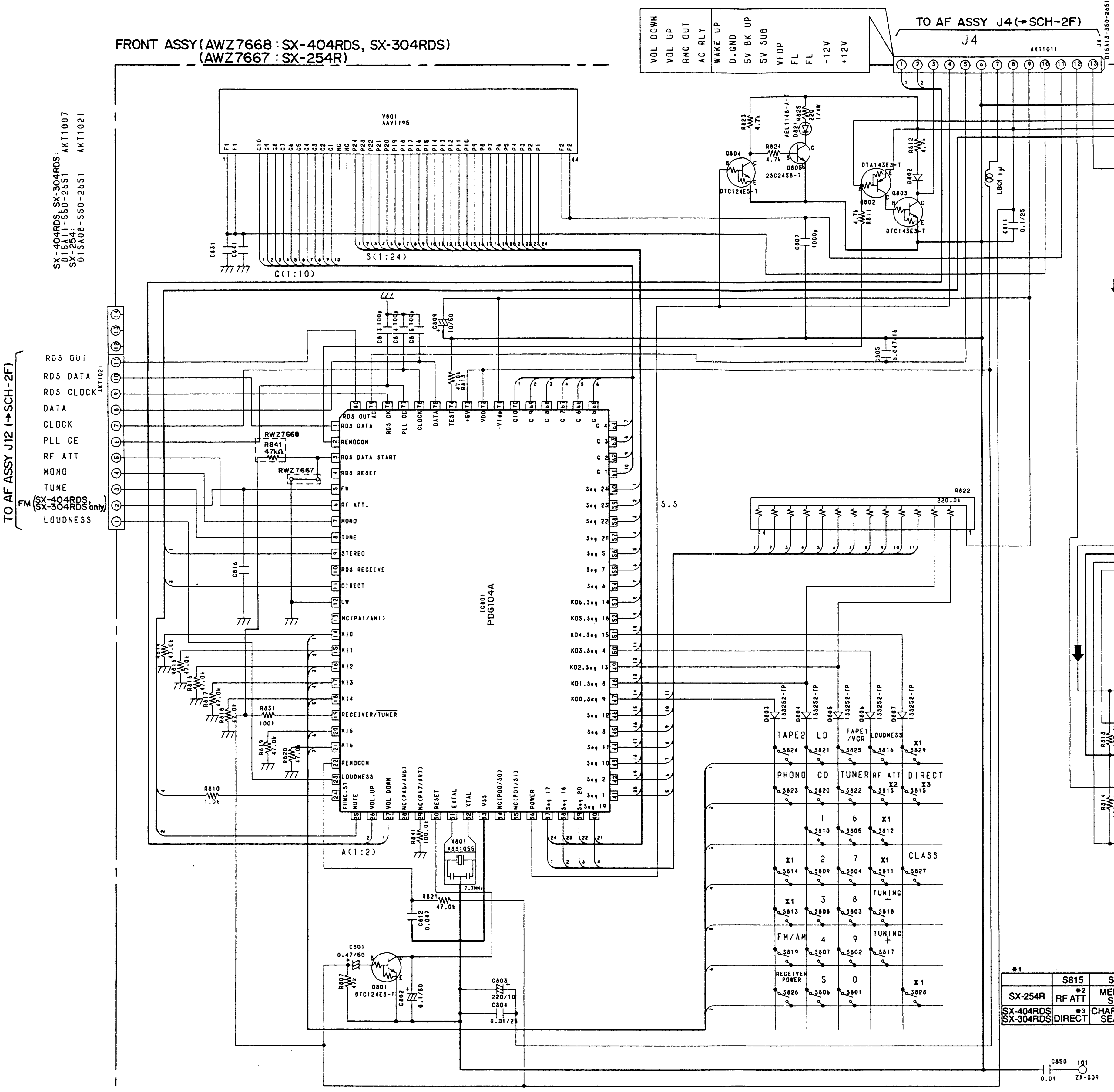
Q802 Q803 Q801 IC801 Q804 Q805 IC361 Q371 Q372

A

B

C

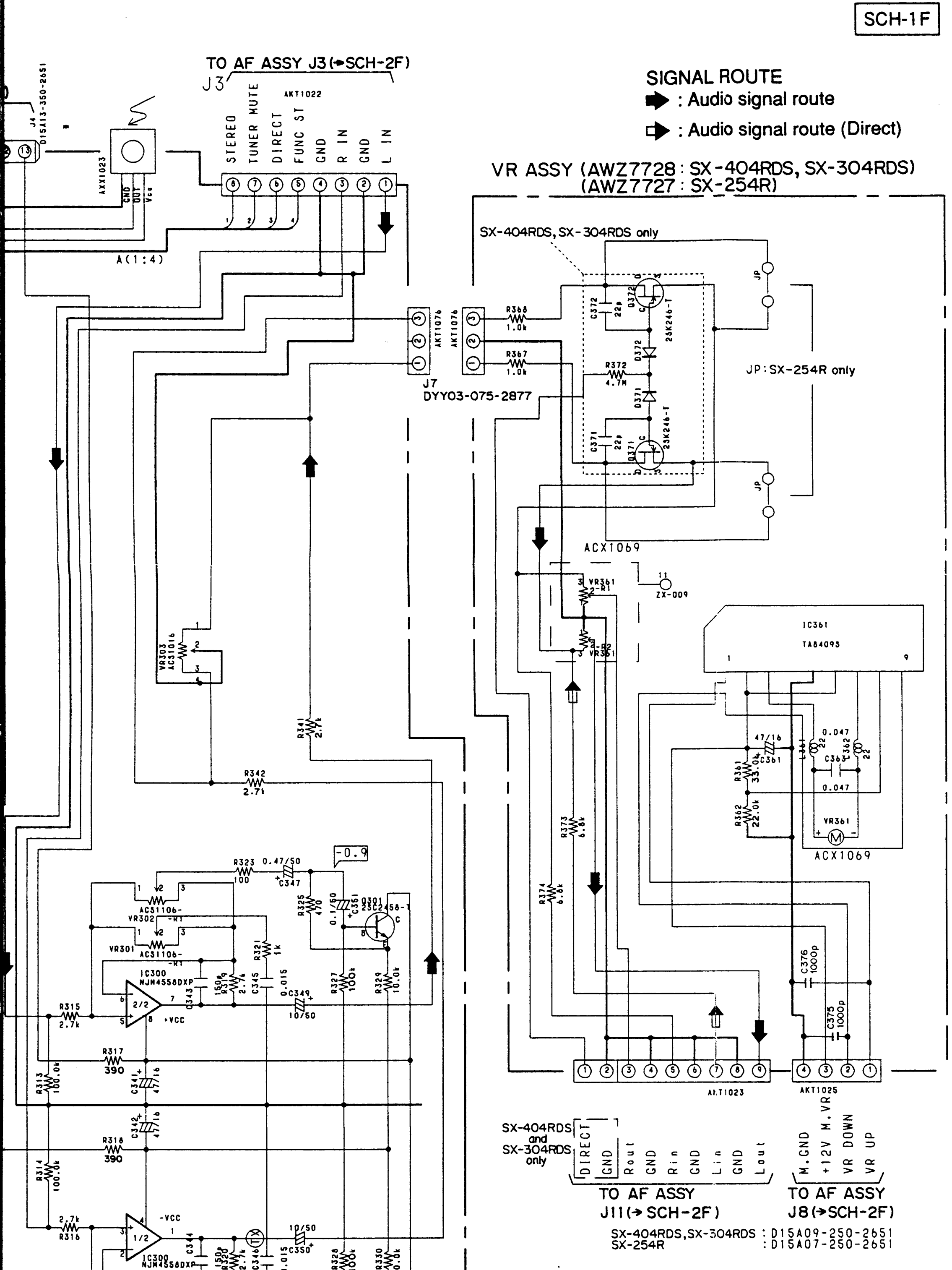
D


FRONT ASSY (AWZ7668 : SX-404RDS, SX-304RDS)
(AWZ7667 : SX-254R)
TO AF ASSY J4 (→SCH-2F)
J4
AKT1011
VOL DOWN
VOL UP
RMC OUT
AC RLY
WAKE UP
D.GND
5V BK UP
5V SUB
VFDP
FL
FL
-12V
+12V
V801
AAV1195
SX-404RDS, SX-304RDS: D15A11-550-2651 AKT1007
SX-254: D15A08-550-2651 AKT1021
C(1:10)
S(1:24)
TO AF ASSY J12 (→SCH-2F)
AKT1021
RDS OUT
RDS DATA
RDS CLOCK
DATA
CLOCK
PLL CE
RF ATT
MONO
TUNE
FM (SX-404RDS, SX-304RDS only)
LOUDNESS
RWZ7668
R841
47kΩ
RWZ7667
IC801
PDG104A
Q804
DTC124ES-T
Q805
2SC2458-T
DTA143ES-T
Q802
Q803
DTC143ES-T
L801 1µ
C807 1000p
R822
220.0k
S.S
TAPE2
LD
TAPE1 /VCR
LOUDNESS
PHONO
CD
TUNER
RF ATT
DIRECT
CLASS
TUNING
FM/AM
RECEIVER POWER
X801
A5310SS
Q801
DTC124ES-T
R810
1.0k
R831
100k
A(1:2)
C850
ZX-009

	S815	S
SX-254R	RF ATT *2	ME
SX-404RDS SX-304RDS	DIRECT *3	CHAR

SCH-1F

FRONT ASSY, RDS ASSY


SCH-1F
SIGNAL ROUTE
: Audio signal route
: Audio signal route (Direct)
TO AF ASSY J3(→SCH-2F)
J3
AKT1022
STEREO
TUNER MUTE
DIRECT
FUNC ST
GND
R IN
GND
L IN
AXX1023
GND
OUT
Vcc
A(1:4)
VR ASSY (AWZ7728 : SX-404RDS, SX-304RDS)
(AWZ7727 : SX-254R)
SX-404RDS, SX-304RDS only
JP : SX-254R only
J7
DYY03-075-2877
AKT1076
R368 1.0k
R367 1.0k
R372 4.7M
C372
C371
Q372 2SK246-Y
Q371 2SK246-Y
D372
D371
JP
ACX1069
VR361
ZX-009
IC361
TA8409S
R361 33.0k
C361 47/16
C362
C363 0.047
0.047
R362 22.0k
VR361
M
ACX1069
R373 6.8k
R374 6.8k
C376 1000p
C375 1000p
VR303 ACS1106
R341 2.7k
R342 2.7k
R323 0.47/50 100
C347
-0.9
VR302 ACS1106-R1
VR301 ACS1106-R1
Q301 2SC2458-Y
IC300 NJM4558DXP
R315 2.7k
R317 390
R313 100.0k
C344 47/16
R318 390
R314 100.0k
C345
C349 10/50
R321 1k
R325 470
R327 100k
R329 10.0k
+VCC
-VCC
AKT1023
AKT1025
SX-404RDS and SX-304RDS only
DIRECT
GND
Rout
GND
Rin
GND
Lin
GND
Lout
M.GND
+12V M.VR
VR DOWN
VR UP
TO AF ASSY
J11(→SCH-2F)
J8(→SCH-2F)
SX-404RDS, SX-304RDS : D15A09-250-2651
SX-254R : D15A07-250-2651

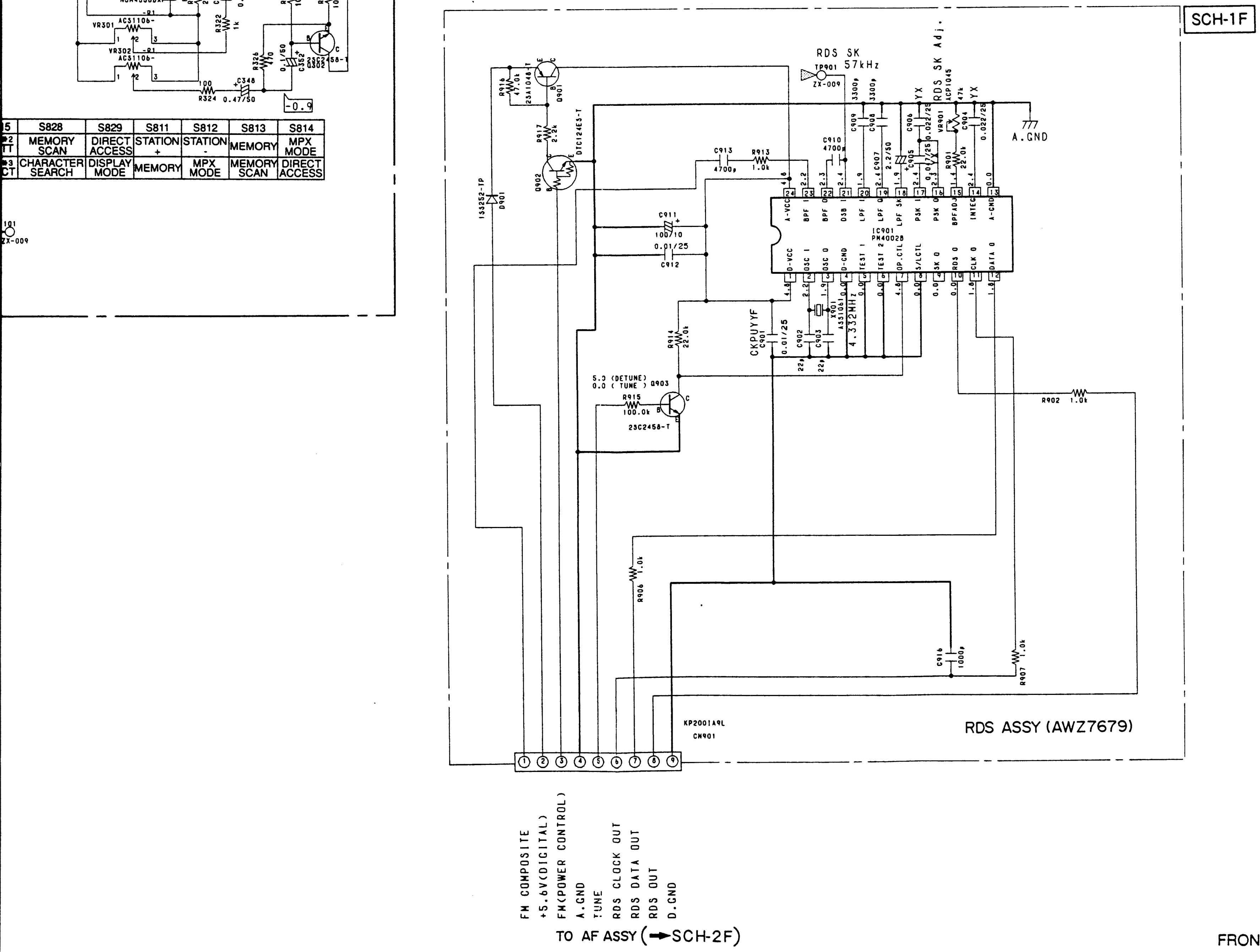
NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   or − V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or − mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ● : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH−□ ON THE SCHEMATIC DIAGRAM:**
   - SCH−□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FRONT assy

S801	0
S802	9
S803	8
S804	7
S805	6
S806	5
S807	4
S808	3
S809	2
S810	1
S811	MEMORY (SX-404RDS and SX-304RDS)
S811	STATION + (SX-254R)
S812	MPX MODE (SX-404RDS and SX-304RDS)
S812	STATION − (SX-254R)
S813	MEMORY SCAN (SX-404RDS and SX-304RDS)
S813	MEMORY (SX-254R)
S814	DIRECT ACCESS (SX-404RDS and SX-304RDS)
S814	MPX MODE (SX-254R)
S815	DIRECT (SX-404RDS and SX-304RDS)
S815	RF ATT (SX-254R)
S816	LOUDNESS
S817	TUNING +
S818	TUNING −
S819	FM/AM
S820	CD
S821	LD
S822	TUNER
S823	PHONO
S824	TAPE2
S825	TAPE1/VCR
S826	RECEIVER
S827	CLASS
S828	CHARACTER/SEARCH (SX-404RDS and SX-304RDS)
S828	MEMORY SCAN (SX-254R)
S829	DISPLAY MODE (SX-404RDS and SX-304RDS)
S829	DIRECT ACCESS (SX-254R)

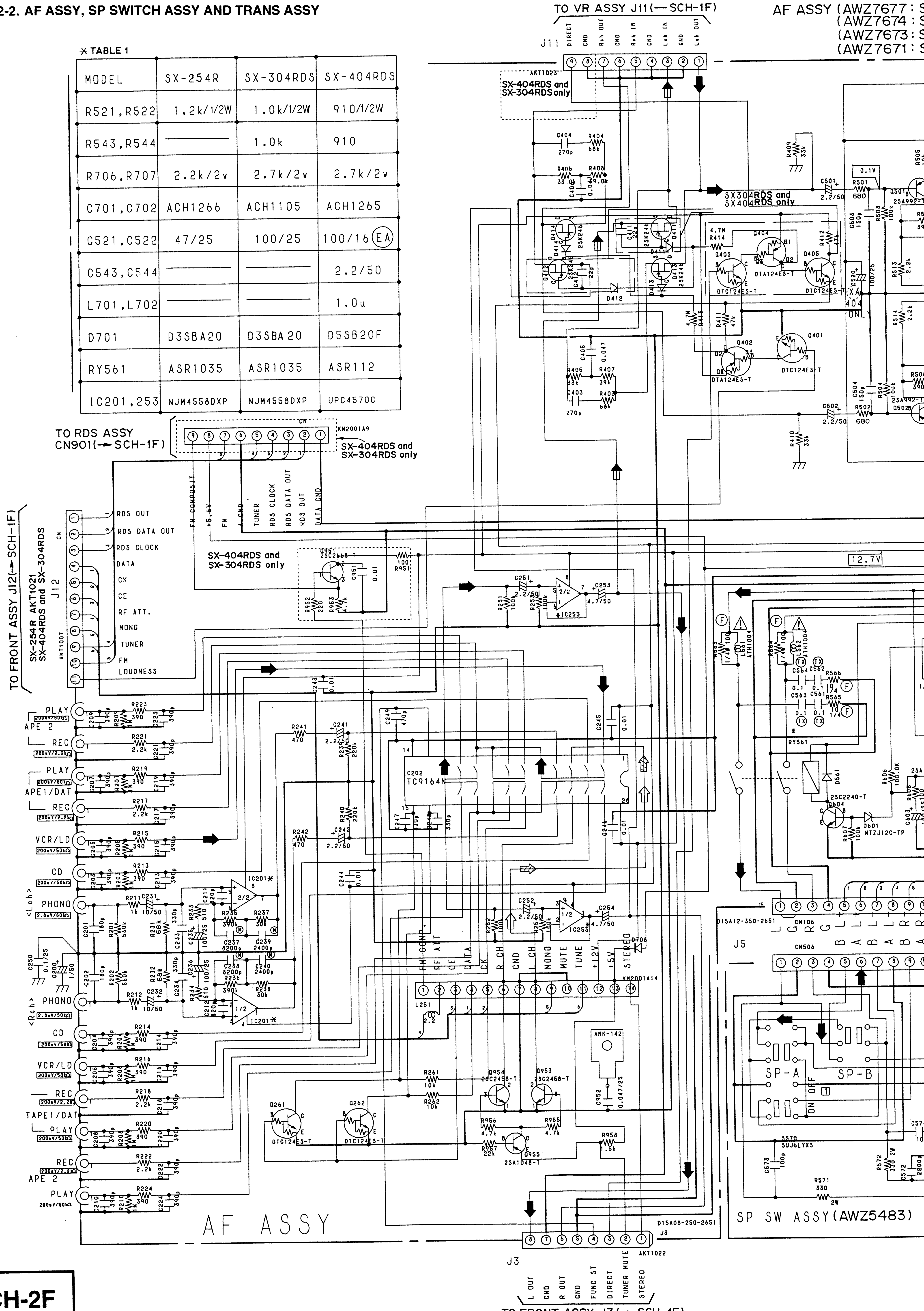
5	S828	S829	S811	S812	S813	S814
2 TT	MEMORY SCAN	DIRECT ACCESS	STATION +	STATION -	MEMORY	MPX MODE
3 CT	CHARACTER SEARCH	DISPLAY MODE	MEMORY	MPX MODE	MEMORY SCAN	DIRECT ACCESS


SCH-1F
101
ZX-009
-0.9
R324 0.47/50
C348
RDS SK
TP901 57kHz
ZX-009
RDS SK Adj.
A.GND
Q901 2SA1048-Y
Q902 DTC124ES-T
R916
R917
D901 1SS252-TP
C913 4700p
R913 1.0k
C910 4700p
C909
C908 3300p
C907 2.2/50
C906
C905
VR901
C904
C903
YX
IC901 PM4002B
A-VCC
BPF
BPF
OSC
LPF
LPF
LPF
PSK
PSK
BPFAD
INTEG
A-GND
D-VCC
OSC 1
OSC 0
D-GND
TEST 1
TEST 2
OP.CTL
S/LCTL
SK 0
RDS 0
CLK 0
DATA 0
C911 100/10
0.01/25
C912
CKPUYYF
C901 0.01/25
C902 22p
C903 22p
X901 4.332MHz
R914 22.0k
5.3 (DETUNE)
0.0 (TUNE) Q903
R915 100.0k
2SC2458-Y
R902 1.0k
R906 1.0k
C916 1000p
R907 1.0k
RDS ASSY (AWZ7679)
KP200TA9L
CN901
FM COMPOSITE
+5.6V(DIGITAL)
FM(POWER CONTROL)
A.GND
TUNE
RDS CLOCK OUT
RDS DATA OUT
RDS OUT
D.GND
TO AF ASSY (→SCH-2F)

2-2. AF ASSY, SP SWITCH ASSY AND TRANS ASSY

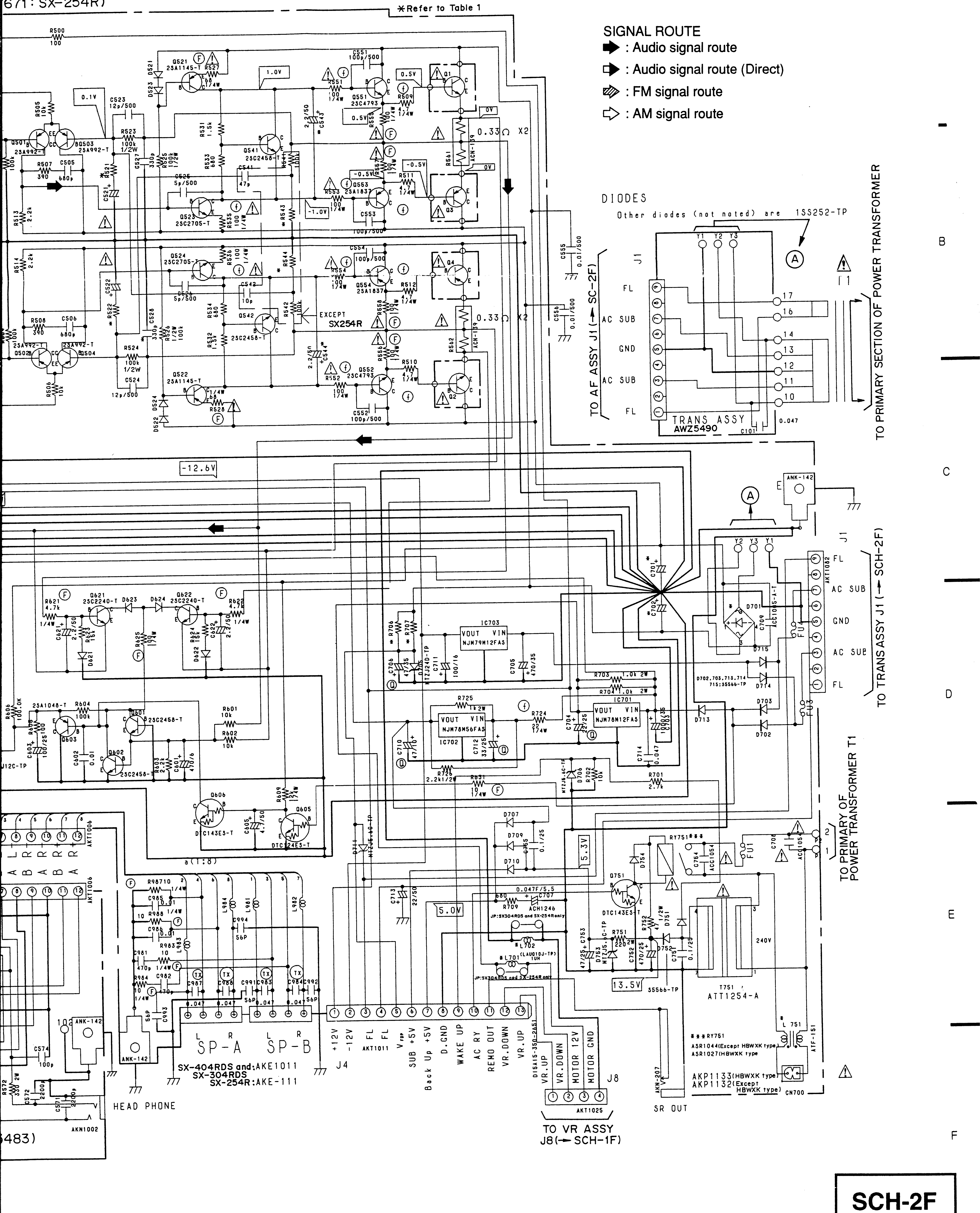
∗TABLE 1

MODEL	SX-254R	SX-304RDS	SX-404RDS
R521, R522	1.2k/1/2W	1.0k/1/2W	910/1/2W
R543, R544	———	1.0k	910
R706, R707	2.2k/2w	2.7k/2w	2.7k/2w
C701, C702	ACH1266	ACH1105	ACH1265
C521, C522	47/25	100/25	100/16 Ⓔⓐ
C543, C544	———	———	2.2/50
L701, L702	———	———	1.0u
D701	D3SBA20	D3SBA20	D5SB20F
RY561	ASR1035	ASR1035	ASR112
IC201, 253	NJM4558DXP	NJM4558DXP	UPC4570C


TO VR ASSY J11(—SCH-1F)
J11
DIRECT
GND
Rch OUT
GND
Rch IN
GND
Lch IN
GND
Lch OUT
AKT1023
SX-404RDS and SX-304RDS only
AF ASSY (AWZ7677 : S
(AWZ7674 : S
(AWZ7673 : S
(AWZ7671 : S
SX304RDS and SX404RDS only
TO RDS ASSY CN901(→SCH-1F)
CN
KM2001A9
SX-404RDS and SX-304RDS only
FM COMPOSIT
+5.6V
FM
L GND
TUNER
RDS CLOCK
RDS DATA OUT
RDS OUT
DATA GND
TO FRONT ASSY J12(→SCH-1F)
SX-254R AKT1021
SX-404RDS and SX-304RDS
J12
AKT1007
RDS OUT
RDS DATA OUT
RDS CLOCK
DATA
CK
CE
RF ATT.
MONO
TUNER
FM
LOUDNESS
SX-404RDS and SX-304RDS only
12.7V
IC202 TC9164N
IC253
IC201
TAPE 2 PLAY
REC
TAPE1/DAT PLAY
REC
VCR/LD
CD
PHONO
<Lch>
<Rch>
FM COMP.
RF ATT
CE
DATA
CK
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
KM2001A14
ANK-142
DTC124ES-T
DTA124ES-T
2SC2458-T
2SA1048-T
2SK246
RY561
ATH1004
2SC2240-T
MTZJ12C-TP
D15A12-350-2651
CN106
J5
CN506
SP-A
SP-B
ON
OFF
SP SW ASSY (AWZ5483)
AF ASSY
D15A08-250-2651
J3
AKT1022
L OUT
GND
R OUT
GND
FUNC ST
DIRECT
TUNER MUTE
STEREO
TO FRONT ASSY J3(→SCH-1F)

SCH-2F

677: SX-404RDS)
674: SX-304RDS/HEXK and SX-304RDS/HEWZXK)
673: SX-304RDS/HBWXK)
671: SX-254R)


5
6
7
8
9
B
C
D
E
F
*Refer to Table 1
SIGNAL ROUTE
➡ : Audio signal route
⇨ : Audio signal route (Direct)
▨ : FM signal route
⇨ : AM signal route
DIODES
Other diodes (not noted) are 1SS252-TP
TO AF ASSY J1 (→ SC-2F)
FL
AC SUB
GND
AC SUB
FL
TRANS ASSY
AWZ5490
TO PRIMARY SECTION OF POWER TRANSFORMER
T1
ANK-142
TO TRANS ASSY J1 (→ SCH-2F)
TO PRIMARY OF POWER TRANSFORMER T1
Q521 2SA1145-T
Q551 2SC4793
Q553 2SA1837
Q541 2SC2458-T
Q523 2SC2705-T
Q524 2SC2705-T
Q542 2SC2458-T
Q554 2SA1837
Q552 2SC4793
Q522 2SA1145-T
Q501 2SA992-T
Q503 2SA992-T
Q502 2SA992-T
Q504 2SA992-T
Q1
Q2
Q3
Q4
0.33Ω X2
EXCEPT SX254R
1.0V
0.1V
0.5V
0V
-0.5V
-1.0V
-12.6V
Q621 2SC2240-T
Q622 2SC2240-T
Q601 2SC2458-T
Q602 2SC2458-T
Q603 2SA1048-T
Q606 DTC143E3-T
Q605 DTC124E3-T
IC703 NJM79M12FAS
IC702 NJM78M56FAS
IC701 NJM78M12FAS
D702,703,713,714 715:3556b-TP
5.0V
5.3V
13.5V
RY751***
Q751 DTC143E3-T
T751 ATT1254-A
240V
***RY751
ASR1044(Except HBWXK type)
ASR1027(HBWXK type)
AKP1133(HBWXK type)
AKP1132(Except HBWXK type)
CN700
ATF-151
SP-A
SP-B
SX-404RDS and:AKE1011
SX-304RDS
SX-254R:AKE-111
HEAD PHONE
AKN1002
ANK-142
J4
+12V
-12V
FL
FL
Vrep
SUB +5V
Back Up +5V
D.GND
WAKE UP
AC RY
REMO OUT
VR.DOWN
VR.UP
VR.UP
VR.DOWN
MOTOR 12V
MOTOR GND
J8
AKT1025
TO VR ASSY J8(→ SCH-1F)
SR OUT
AKN-207
JP:SX304RDS and SX-254R only
483)

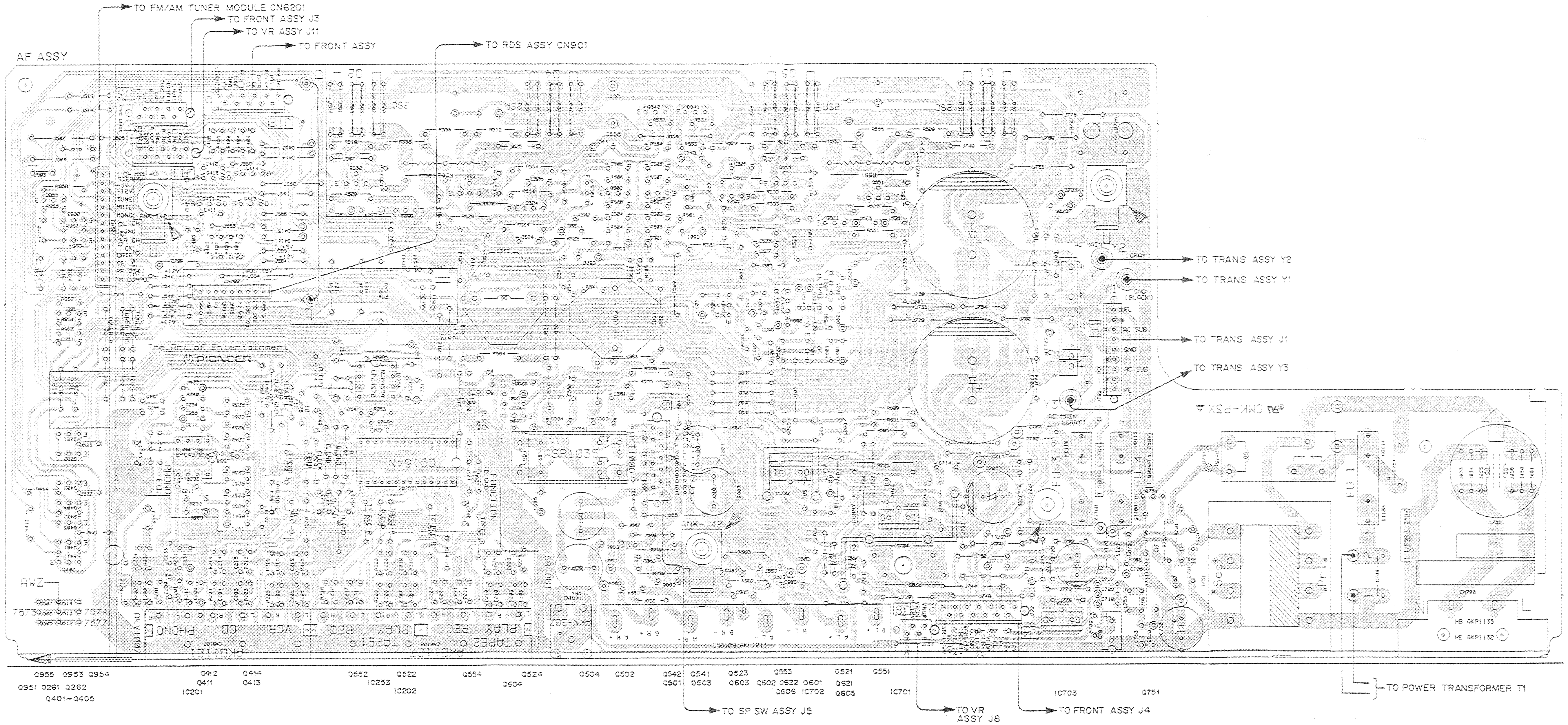
SCH-2F

AF ASSY

- This diagram is viewed from the mounted parts side.

Note :
PCB diagram of AF ASSY for SX-254R, refer to AF ASSY for SX-303RDS.

PCB-2F



AF ASSY
TO FM/AM TUNER MODULE CN6201
TO FRONT ASSY J3
TO VR ASSY J11
TO FRONT ASSY
TO RDS ASSY CN901
TO TRANS ASSY Y2
TO TRANS ASSY Y1
TO TRANS ASSY J1
TO TRANS ASSY Y3
PHONO CD VCR PLAY REC PLAY REC
TAPE1 TAPE2
FUNCTION
ANK-142
Q955 Q953 Q954
Q951 Q261 Q262
Q401–Q405
Q412 Q411 IC201
Q414 Q413
Q552 IC253
Q522 IC202
Q554
Q524 Q604
Q504 Q502
Q542 Q501
Q541 Q503
Q523 Q603
Q553 Q602 Q622 Q601 Q606 IC702
Q521 Q621 Q605
Q551
IC701
IC703
Q751
TO SP SW ASSY J5
TO VR ASSY J8
TO FRONT ASSY J4
TO POWER TRANSFORMER T1

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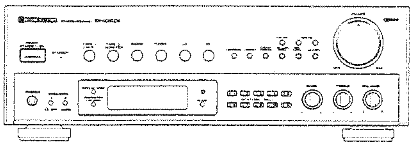
Service Manual



The illustration shows model SX−403RDS.

ORDER NO.
ARP2859

STEREO RECEIVER

SX-403RDS
SX-303RDS
SX-203RDS

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model			Power Requirement	The voltage can be converted by the following method.
	SX−403RDS	SX−303RDS	SX−203RDS		
HEXK	○	○	○	AC220−230V	AC240V, *
HBXK	—	○	○	AC240V	AC220−230V, *
HEWZXK	○	○	○	AC220−230V	AC240V, *

*: Alter the wiring of the Power-supply block at the primary winding of Power transformer referring to the "Line Voltage Selection" described in Service Manual.

- For the following: SX−403RDS/HEWZXK; SX−303RDS/HBXK and HEWZXK; SX−203/HBXK and HEWZXK, refer to page 40.

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O−DFO MAY 1994 Printed in Japan

1. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

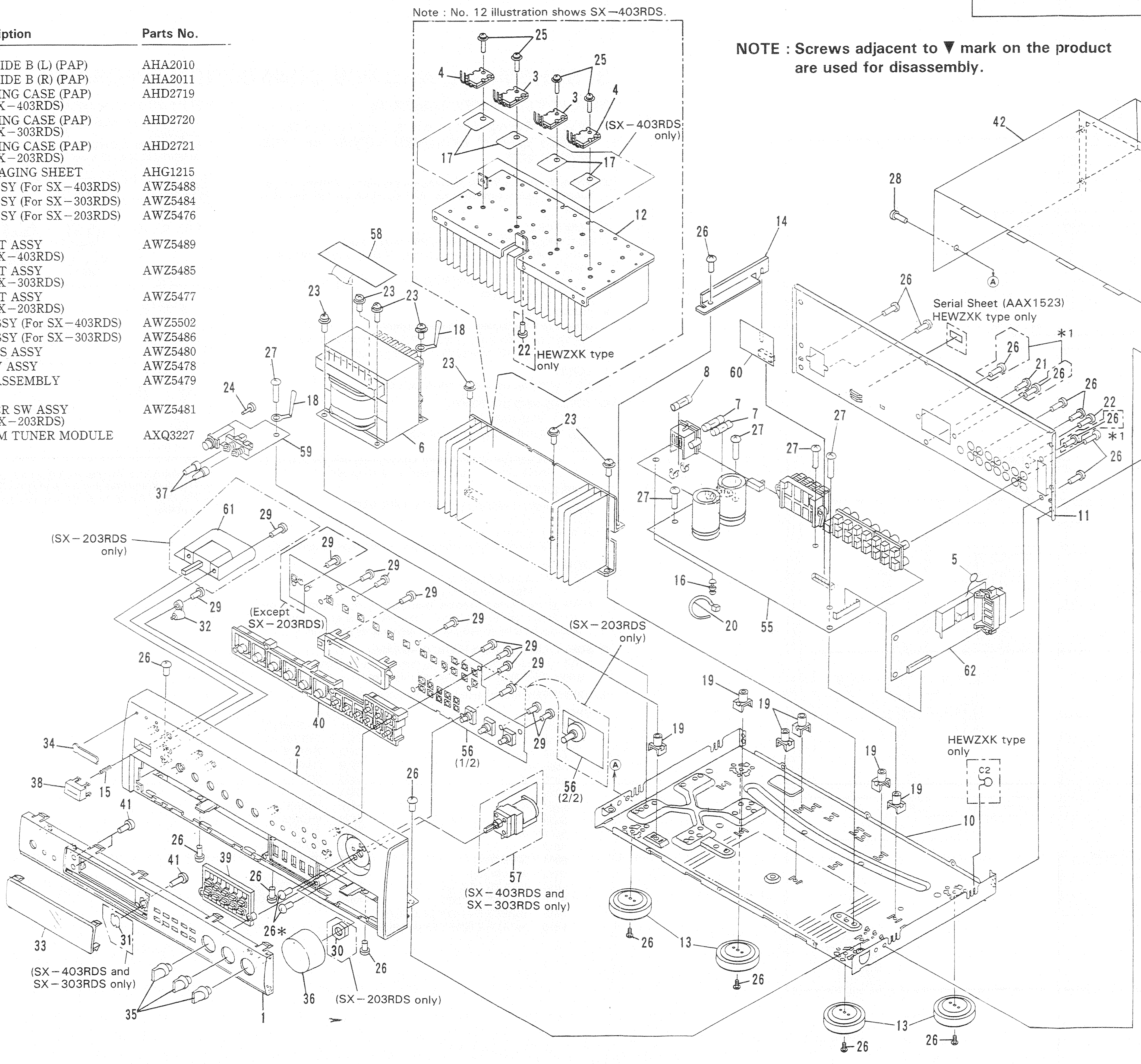
Parts List of Exterior and Packing
(For SX−403RDS/HEXK, SX−303RDS/HEXK and SX−203RDS/HEXK)

Mark	No.	Description	Parts No.
	1	SUB PANEL (PLS)	AAP1465
	2	FRONT PANEL (PLS) (For SX−403RDS)	AMB2222
	2	FRONT PANEL (PLS) (For SX−303RDS)	AMB2226
	2	FRONT PANEL (PLS) (For SX−203RDS)	AMB2227
⚠	3	TRANSISTOR (Q3, Q4) (For SX−403RDS)	2SA1302
⚠	3	POWER TRANSISTOR (Q3, Q4) (For SX−303RDS)	2SA1804
⚠	3	POWER TRANSISTOR (Q3, Q4) (For SX−203RDS)	2SA1803
⚠	4	TRANSISTOR (Q1, Q2) (For SX−403RDS)	2SC3281
⚠	4	POWER TRANSISTOR (Q1, Q2) (For SX−303RDS)	2SC4689
⚠	4	POWER TRANSISTOR (Q1, Q2) (For SX−203RDS)	2SC4688
	5	CERAMIC CAPACITOR (C1)	CKDYB102K50
⚠	6	POWER TRANSFORMER (T1) (For SX−403RDS)	ATS1544
⚠	6	POWER TRANSFORMER (T1) (For SX−303RDS)	ATS1543
⚠	6	POWER TRANSFORMER (T1) (For SX−203RDS)	ATS1542
⚠	7	FUSE (T800MA/250V, FU3, FU4)	AEK−507
⚠	8	FUSE (T2A/250V, FU1) (For SX−403RDS)	AEK−511
⚠	8	FUSE (T1.6A/250V, FU1) (For SX−303RDS)	AEK−510
⚠	8	FUSE (1.25A/250V, FU1) (For SX−203RDS)	AEK−509
⚠	9	AC POWER CORD	ADG1135
NSP	10	CHASSIS (MET)	ANA1481
	11	REAR PANEL (MET) (For SX−403RDS)	ANC2213
	11	REAR PANEL (MET) (For SX−303RDS)	ANC2164
	11	REAR PANEL (MET) (For SX−203RDS)	ANC2165
NSP	12	RADIATOR (MET) (For SX−403RDS)	ANH1475
NSP	12	RADIATOR (MET) (For SX−303RDS)	ANH1476
NSP	12	RADIATOR (MET) (For SX−203RDS)	ANH1477
	13	INSULATOR	PNW1912
	14	HOLDER (MTL)	ANG1928
	15	SPRING (FE)	ABH1095
	16	PCB SUPPORT	AEC1581
	17	SHEET (SX−403RDS only)	AEE1014
	18	BINDER	AEP−215
	19	PCB MOLD (PP)	AMR2533
NSP	20	BINDER (BK−1)	Z09−057
	21	SCREW (For SX−403RDS)	VCT30P080FZK
	21	SCREW (For SX−303RDS and SX−203RDS)	BCZ30P080FZK
	22	SCREW (STEEL)	ABA1047
	23	SCREW	ABA1054
	24	SCREW (STEEL)	ABA1095
	25	SCREW (STEEL)	ABA1194
	26	SCREW	BBZ30P080FMC
	27	SCREW	BBZ30P200FMC
	28	SCREW	BCZ30P080FZK
	29	SCREW	BPZ26P080FMC
	30	NUT (SX−203RDS only)	NK90FUC
	31	IR FILTER (PLS) (SX−403RDS and SX−303RDS only)	AAK2551
	32	LED LENS (PLS)	AAK2553
	33	FL PANEL (PLS) (For SX−403RDS and SX−303RDS)	AAK2556
	33	FL PANEL (PLS) (For SX−203RDS)	AAK2557
	34	NAME PLATE	PAM1608
	35	ROUND KNOB S (PLS)	AAB1389
	36	ROUND KNOB L (PLS)	AAB1390
	37	PUSH BUTTON (PLS)	AAD2530
	38	POWER BUTTON (PLS)	AAD2531
	39	STATION BUTTON (PLS)	AAD2532
	40	HINGE BUTTON (PLS) (For SX−403RDS)	AAD2534
	40	HINGE BUTTON (PLS) (For SX−303RDS and SX−203RDS)	AAD2533
	41	PUSH BUTTON (PLS)	AAD2535
	42	BONNET CASE (MET)	ANE1502
	43	OPERATING INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312
	44	REMOTE CONTROL UNIT (CU−SX087) (SX−403RDS and SX−303RDS only)	AXD1397
	45	BATTERY COVER (SX−403RDS and SX−303RDS only)	AZA7031
NSP	46	BATTERY (R6P, AA) (SX−403RDS and SX−303RDS only)	AEX−010
	47	FM ANTENNA ASS'Y	ADH1019
	48	....	
	49	LOOP ANTENNA (L8042)	ATB1011
	50	PAD SIDE A (PAP)	AHA2009

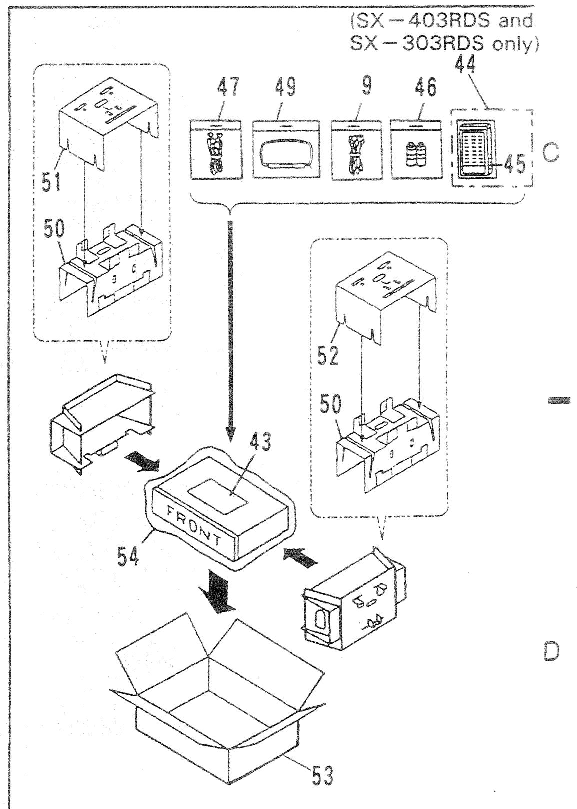
Mark	No.	Description	Parts No.
	51	PAD SIDE B (L) (PAP)	AHA2010
	52	PAD SIDE B (R) (PAP)	AHA2011
	53	PACKING CASE (PAP) (For SX−403RDS)	AHD2719
	53	PACKING CASE (PAP) (For SX−303RDS)	AHD2720
	53	PACKING CASE (PAP) (For SX−203RDS)	AHD2721
	54	PACKAGING SHEET	AHG1215
	55	AF ASSY (For SX−403RDS)	AWZ5488
	55	AF ASSY (For SX−303RDS)	AWZ5484
	55	AF ASSY (For SX−203RDS)	AWZ5476
	56	FRONT ASSY (For SX−403RDS)	AWZ5489
	56	FRONT ASSY (For SX−303RDS)	AWZ5485
	56	FRONT ASSY (For SX−203RDS)	AWZ5477
	57	VR ASSY (For SX−403RDS)	AWZ5502
	57	VR ASSY (For SX−303RDS)	AWZ5486
	58	TRANS ASSY	AWZ5480
	59	SP SW ASSY	AWZ5478
	60	RDS ASSEMBLY	AWZ5479
	61	POWER SW ASSY (For SX−203RDS)	AWZ5481
	62	FM/AM TUNER MODULE	AXQ3227

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

Note : No. 12 illustration shows SX−403RDS.

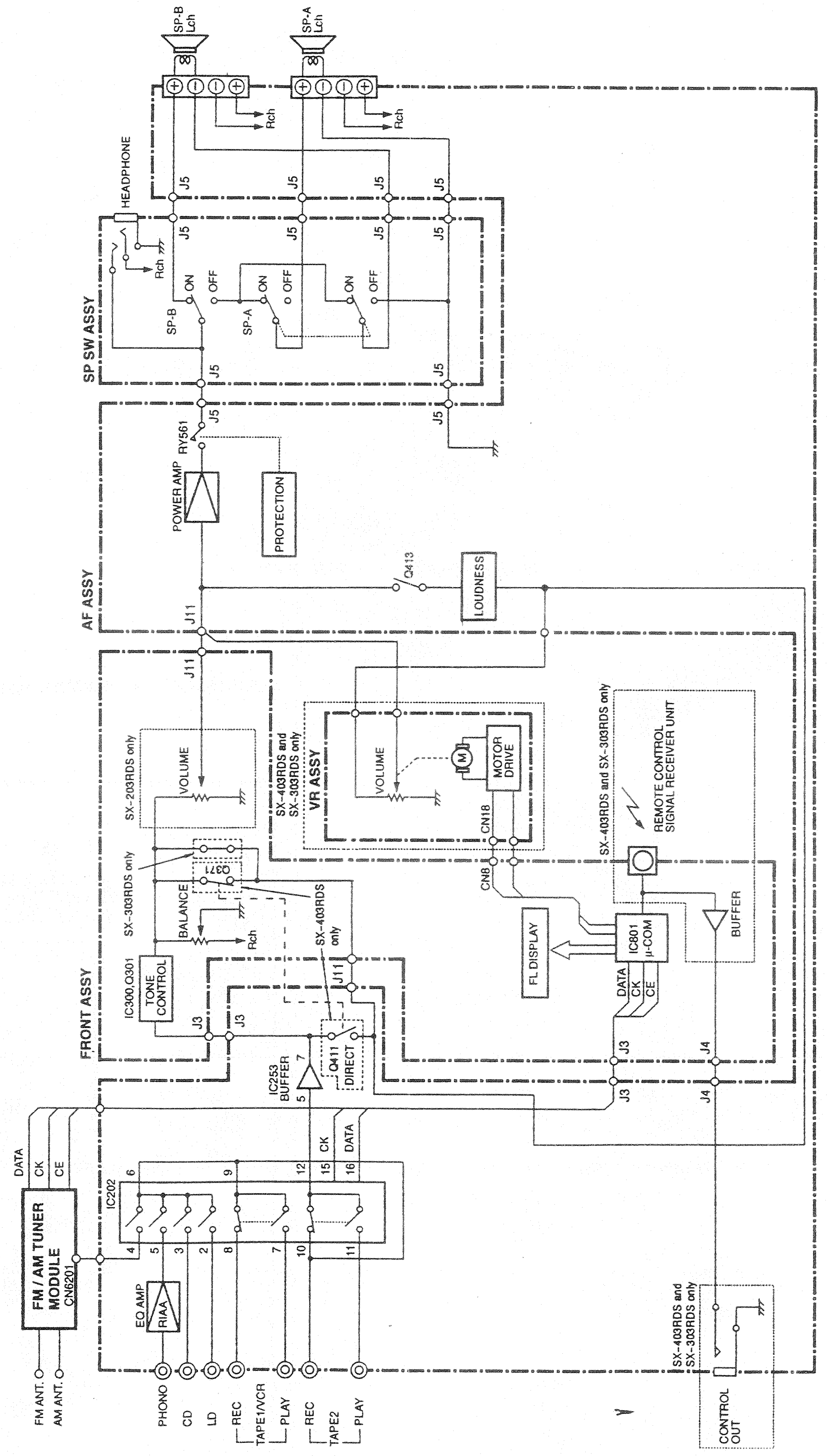

25
25
4
3
3
4
(SX−403RDS only)
17
17
12
22
HEWZXK type only
58
23
23
23
18
6
23
27
24
18
59
37
23
14
26
42
21
28
28
26
Serial Sheet (AAX1523)
HEWZXK type only
*1
26
21
26
26
22
26
*1
26
11
8
60
7
7
27
27
27
27
16
20
55
5
62
61
(SX−203RDS only)
29
29
29
29
29
32
29
(Except SX−203RDS)
29
29
29
40
(SX−203RDS only)
26
34
38
15
2
56
(1/2)
56
(2/2)
Ⓐ
Ⓐ
19
19
19
19
19
HEWZXK type only
C2
10
26
41
41
39
26
26*
33
31
(SX−403RDS and SX−303RDS only)
35
1
36
30
26
(SX−203RDS only)
57
(SX−403RDS and SX−303RDS only)
13
26
13
26
13
13
26
26

*1 (Screw): When HEWZXK type ··· ABA1047


(SX−403RDS and SX−303RDS only)
47
49
9
46
44
45
51
50
52
50
43
FRONT
54
53

* : SX−403RDS and SX−303RDS only

2. BLOCK DIAGRAM


SP-B Lch
SP-A Lch
Rch
HEADPHONE
J5
SP SW ASSY
ON
OFF
SP-B
SP-A
RY561
POWER AMP
PROTECTION
Q413
LOUDNESS
AF ASSY
J11
SX-203RDS only
VOLUME
SX-403RDS and SX-303RDS only
VR ASSY
MOTOR DRIVE
CN18
CN8
SX-403RDS and SX-303RDS only
REMOTE CONTROL SIGNAL RECEIVER UNIT
SX-303RDS only
Q371
BALANCE
SX-403RDS only
IC300,Q301 TONE CONTROL
FRONT ASSY
J3
FL DISPLAY
IC801 µ-COM
BUFFER
DATA
CK
CE
IC253 BUFFER
Q411 DIRECT
J4
FM / AM TUNER MODULE CN6201
IC202
EQ AMP RIAA
FM ANT.
AM ANT.
PHONO
CD
LD
REC
TAPE1/VCR
PLAY
REC
TAPE2
PLAY
CONTROL OUT

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

NOTE FOR SCHEMATIC DIAGRAMS

Type 1A

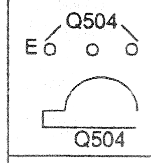
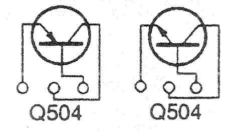
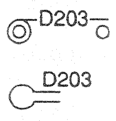
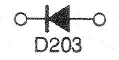
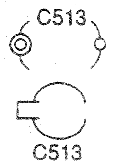
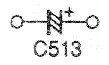
1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   AF AMPLIFER SECTION :
   $\boxed{\quad V}$: Signal voltage at rated output.
   ▭ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   TUNER SECTION :
   $\boxed{\ mV}$: Signal voltage at FM 1kHz, 100% MOD.
   ▭ or ← V :
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◁ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH–□ ON THE SCHEMATIC DIAGRAM:**
   - SCH–□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FRONT assy

S801	0	S816	LOUDNESS
S802	9	S817	TUNING +
S803	8	S818	TUNING –
S804	7	S819	FM/AM
S805	6	S820	CD
S806	5	S821	LD
S807	4	S822	TUNER
S808	3	S823	PHONO
S809	2	S824	TAPE2
S810	1	S825	TAPE1/VCR
S811	MEMORY	S826	RECEIVER
S812	MPX MODE	S827	CLASS
S813	MEMORY SCAN	S828	CHARACTER/SEARCH
S814	DIRECT ACCESS	S829	DISPLAY MODE
S815	DIRECT (SX-403RDS ONLY)		
S815	RF ATT (EXCEPT SX-403RDS)		

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
 Q504	 Q504 Q504	Transistor
 D203	 D203	Diode
 C513	 C513	Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

3.1 OVERALL SCHEMATIC DIAGRAM

Line Voltage Selection

Line Voltage can be changed by the following modification:

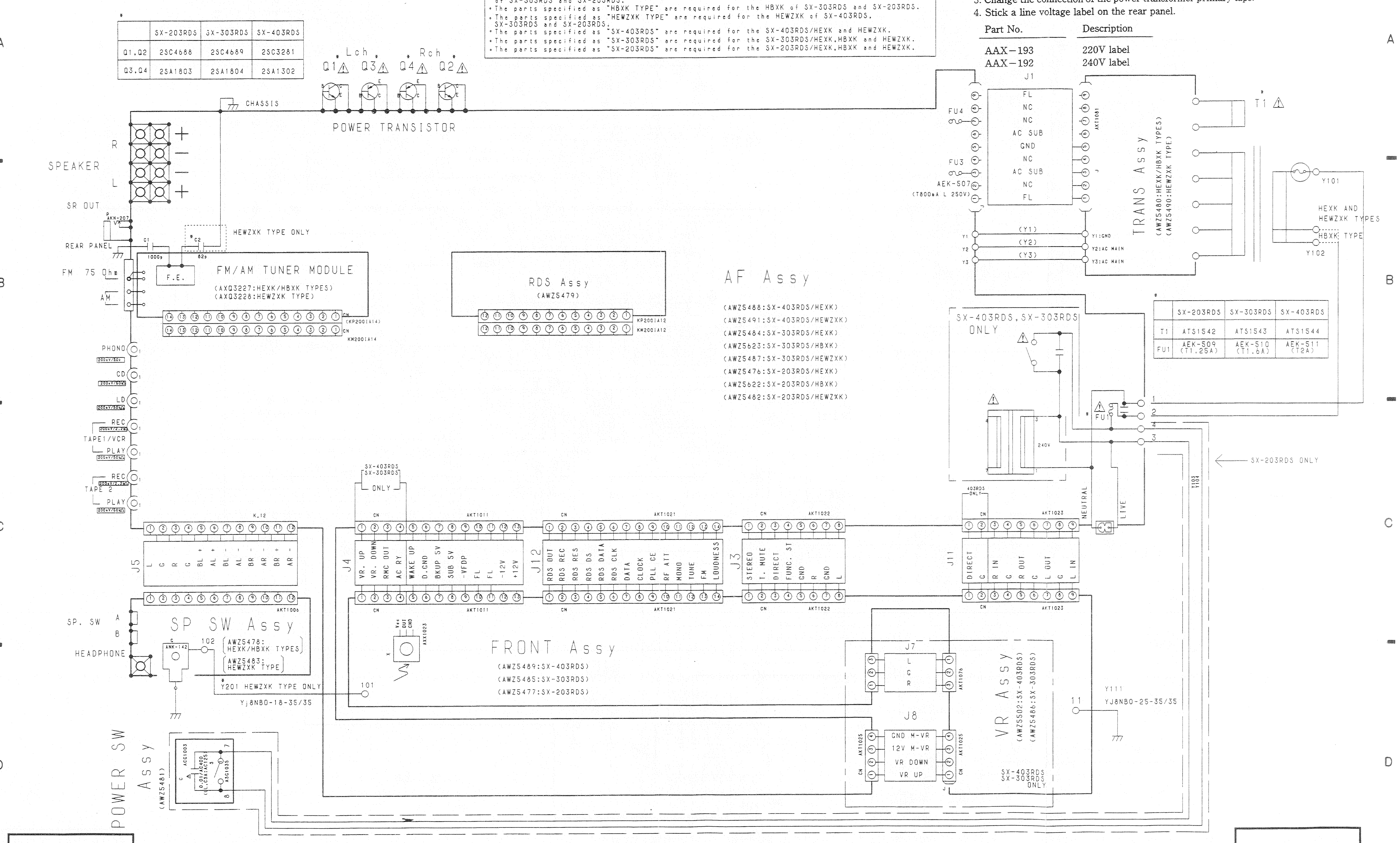
1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the connection of the power transformer primary taps.
4. Stick a line voltage label on the rear panel.

Part No.	Description
AAX−193	220V label
AAX−192	240V label

SCH-1

NOTE:

- The parts specified as "HEXK/HBXK TYPES" are required for the SX-403RDS/HEXK:HEXK and HBXK of SX-303RDS and SX-203RDS.
- The parts specified as "HBXK TYPE" are required for the HBXK of SX-303RDS and SX-203RDS.
- The parts specified as "HEWZXK TYPE" are required for the HEWZXK of SX-403RDS, SX-303RDS and SX-203RDS.
- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXK and HEWZXK.


1
2
3
4
5
6
A
B
C
D
Lch
Rch
Q1
Q3
Q4
Q2
CHASSIS
POWER TRANSISTOR
SPEAKER
R
L
SR OUT
AKN-207
REAR PANEL
HEWZXK TYPE ONLY
C1
C2
FM 75 Ohm
AM
F.E.
FM/AM TUNER MODULE
(AXQ3227:HEXK/HBXK TYPES)
(AXQ3228:HEWZXK TYPE)
KP200IA14
KM200IA14
RDS Assy
(AWZ5479)
KP200IA12
KM200IA12
AF Assy
(AWZ5488:SX-403RDS/HEXK)
(AWZ5491:SX-403RDS/HEWZXK)
(AWZ5484:SX-303RDS/HEXK)
(AWZ5623:SX-303RDS/HBXK)
(AWZ5487:SX-303RDS/HEWZXK)
(AWZ5476:SX-203RDS/HEXK)
(AWZ5622:SX-203RDS/HBXK)
(AWZ5482:SX-203RDS/HEWZXK)
PHONO
CD
LD
REC
TAPE1/VCR
PLAY
REC
TAPE 2
PLAY
J1
FL
NC
NC
AC SUB
GND
NC
AC SUB
NC
FL
AKT1081
FU4
FU3
AEK-507
(T800mA L 250V)
(Y1)
(Y2)
(Y3)
Y1:GND
Y2:AC MAIN
Y3:AC MAIN
TRANS Assy
(AWZ5480:HEXK/HBXK TYPES)
(AWZ5490:HEWZXK TYPE)
T1
Y101
HEXK AND HEWZXK TYPES
HBXK TYPE
Y102
SX-403RDS, SX-303RDS ONLY
FU1
240V
SX-203RDS ONLY
NEUTRAL
LIVE
Y103
Y104
403RDS ONLY
SX-403RDS
SX-303RDS
ONLY
K.12
AKT1011
AKT1021
AKT1022
AKT1023
J5
L
G
R
G
BL +
AL +
BL -
AL -
BR -
AR -
BR +
AR +
J4
VR. UP
VR. DOWN
RMC OUT
AC RY
WAKE UP
D.GND
BKUP 5V
SUB 5V
-VFDP
FL
FL
-12V
+12V
J12
RDS OUT
RDS REC
RDS RES
RDS DS
RDS DATA
RDS CLK
DATA
CLOCK
PLL CE
RF ATT
MONO
TUNE
FM
LOUDNESS
J3
STEREO
T. MUTE
DIRECT
FUNC. ST
GND
R
GND
L
J11
DIRECT
G
R IN
G
R OUT
G
L OUT
G
L IN
AKT1006
SP. SW
A
B
HEADPHONE
SP SW Assy
ANK-142
102
(AWZ5478: HEXK/HBXK TYPES)
(AWZ5483: HEWZXK TYPE)
Y201 HEWZXK TYPE ONLY
YJ8NB0-18-35/35
101
AXX1023
FRONT Assy
(AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(AWZ5477:SX-203RDS)
J7
L
G
R
AKT1076
J8
GND M-VR
12V M-VR
VR DOWN
VR UP
AKT1025
VR Assy
(AWZ5502:SX-403RDS)
(AWZ5486:SX-303RDS)
SX-403RDS
SX-303RDS
ONLY
11
Y111
YJ8NB0-25-35/35
POWER SW Assy
(AWZ5481)
ACC1003
0.01/AC400 (UL.CSA:AC125)
ASG1035

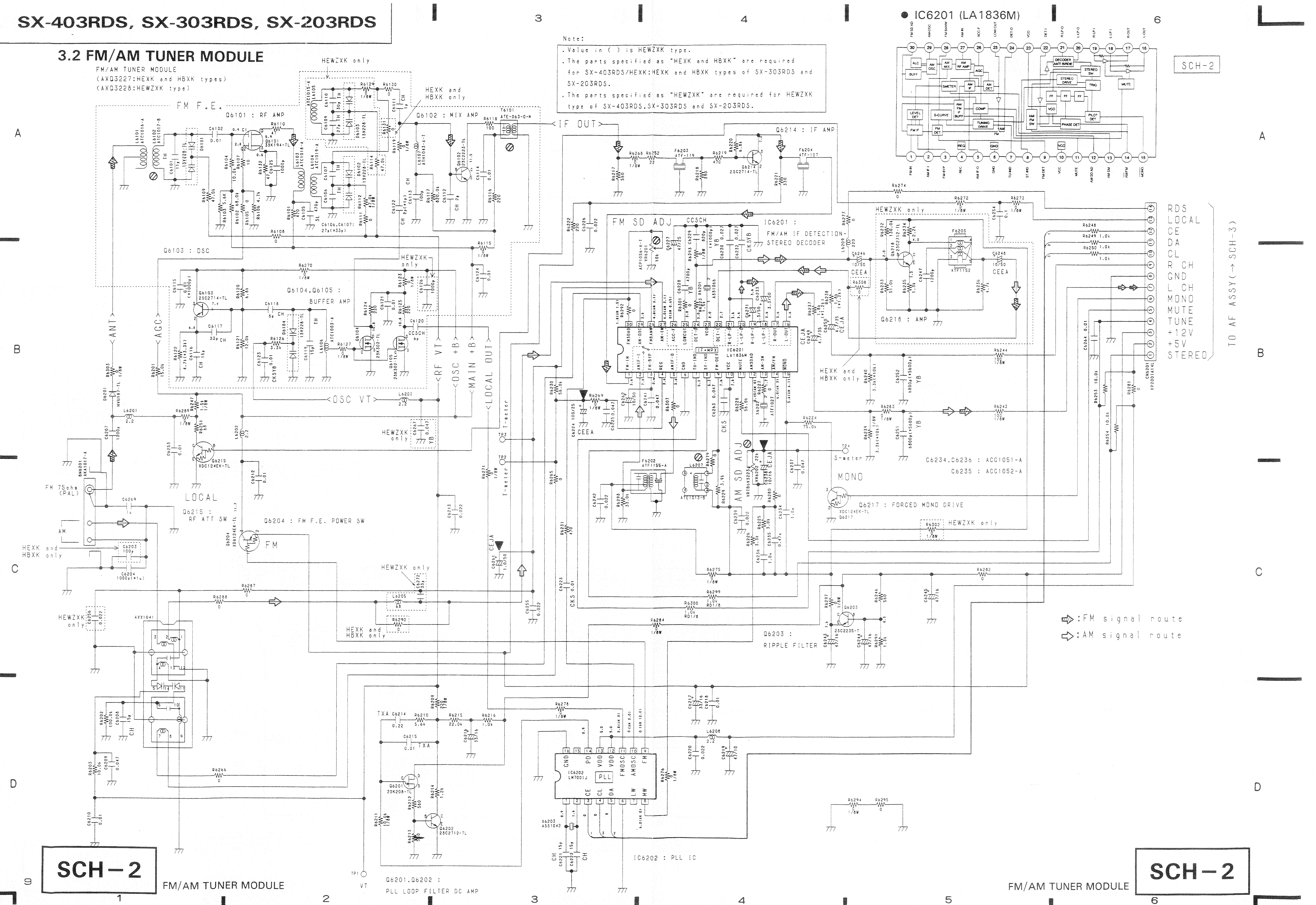
	SX-203RDS	SX-303RDS	SX-403RDS
Q1,Q2	2SC4688	2SC4689	2SC3281
Q3,Q4	2SA1803	2SA1804	2SA1302

	SX-203RDS	SX-303RDS	SX-403RDS
T1	ATS1542	ATS1543	ATS1544
FU1	AEK-509 (T1.25A)	AEK-510 (T1.6A)	AEK-511 (T2A)

3.2 FM/AM TUNER MODULE

FM/AM TUNER MODULE
(AXQ3227:HEXK and HBXK types)
(AXQ3228:HEWZXK type)

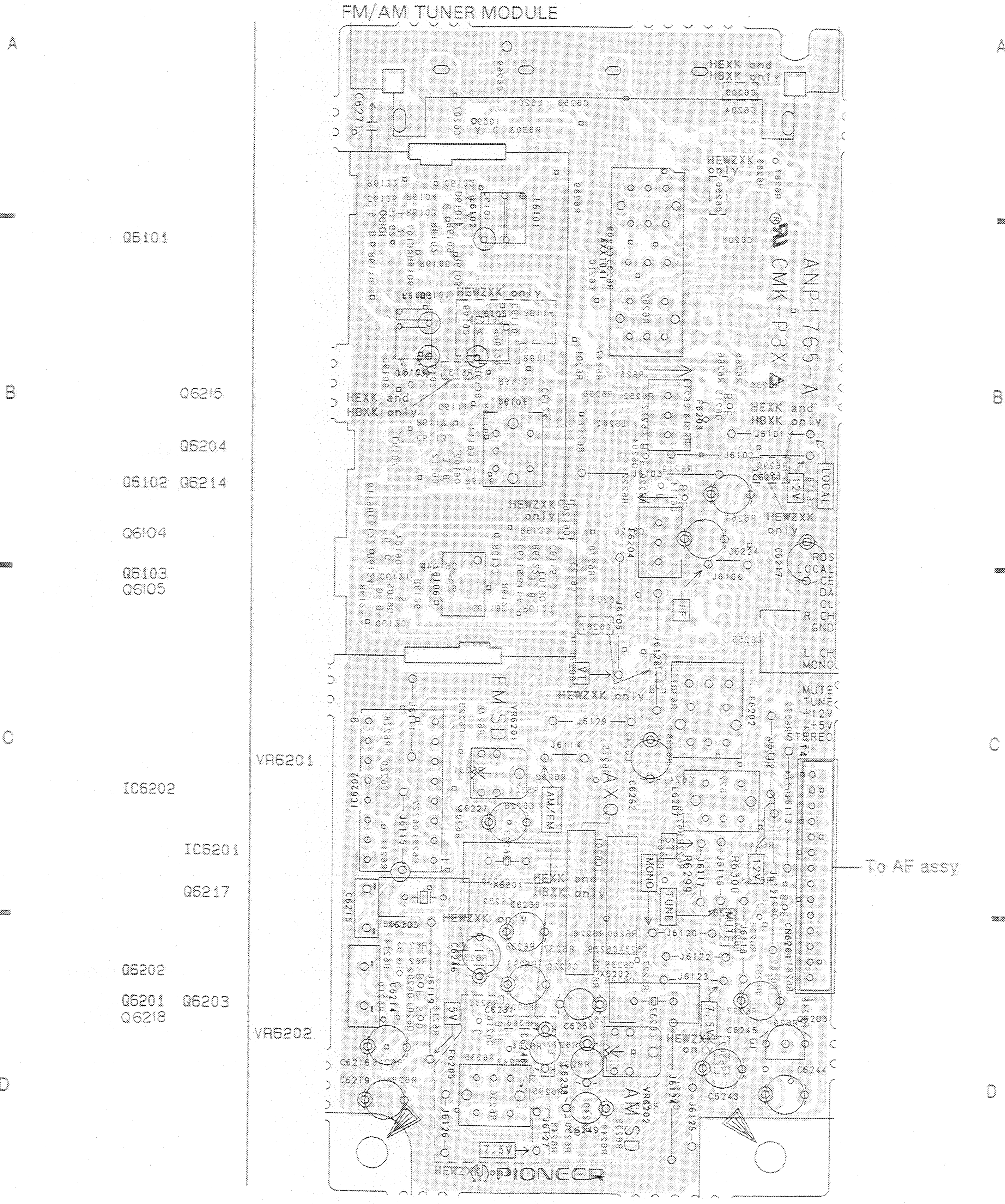
Note:
. Value in ( ) is HEWZXK type.
. The parts specified as "HEXK and HBXK" are required for SX-403RDS/HEXK:HEXK and HBXK types of SX-303RDS and SX-203RDS.
. The parts specified as "HEWZXK" are required for HEWZXK type of SX-403RDS, SX-303RDS and SX-203RDS.

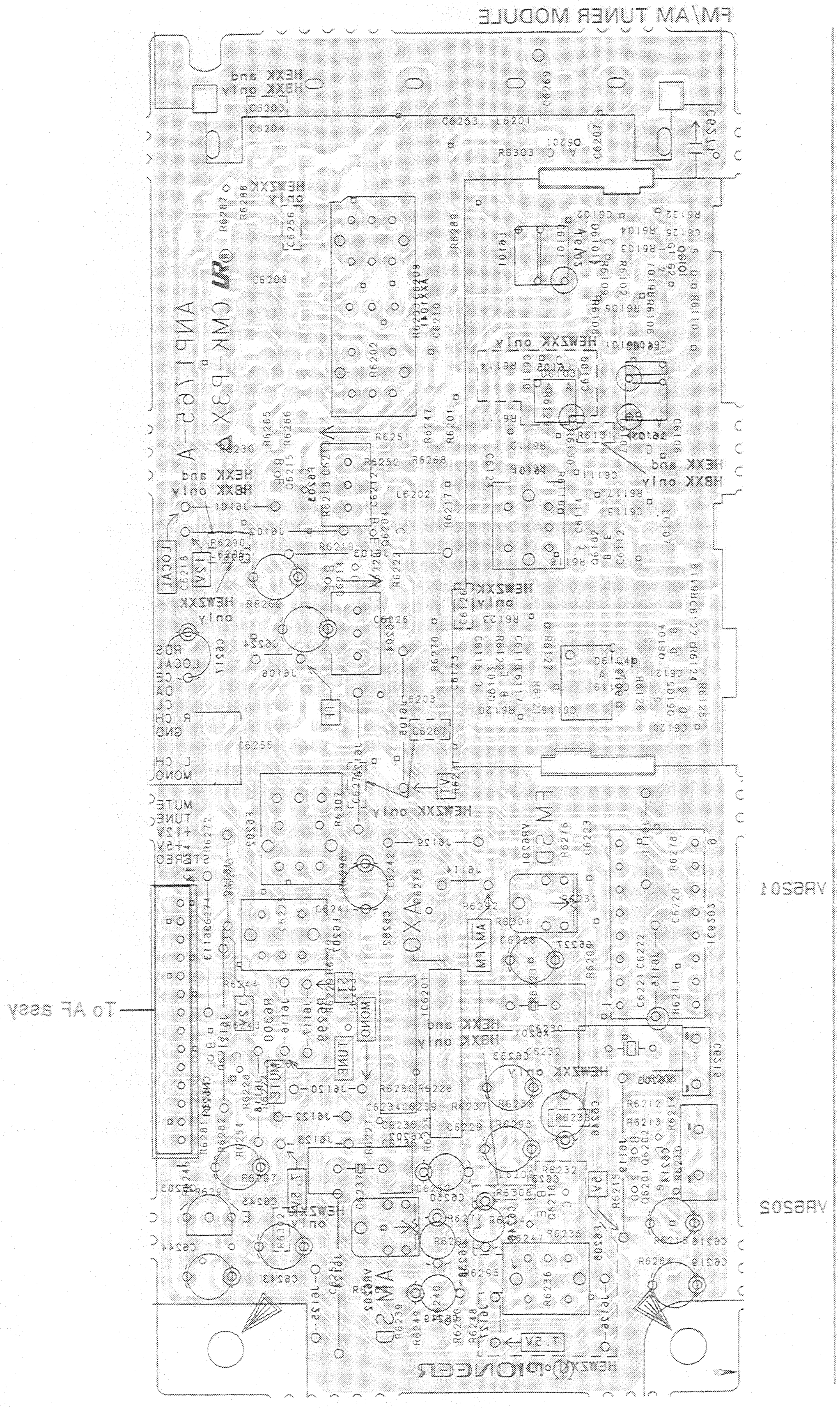


IC6201 (LA1836M)
SCH-2
FM F.E.
Q6101 : RF AMP
Q6102 : MIX AMP
Q6103 : OSC
Q6104, Q6105 : BUFFER AMP
HEWZXK only
HEXK and HBXK only
IF OUT
Q6214 : IF AMP
FM SD ADJ
IC6201 : FM/AM IF DETECTION-STEREO DECODER
Q6218 : AMP
RDS
LOCAL
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
TO AF ASSY (→ SCH-3)
CN6201 KP200IA14L
ANT
AGC
RF VT
OSC +B
MAIN +B
LOCAL OUT
OSC VT
Q6215 : RF ATT SW
Q6204 : FM F.E. POWER SW
FM 75ohm (PAL)
AM
AXX1041
T-meter
S-meter
AM SD ADJ
MONO
Q6217 : FORCED MONO DRIVE
C6234, C6236 : ACG1051-A
C6235 : ACG1052-A
Q6203 : RIPPLE FILTER
:FM signal route
:AM signal route
IC6202 LM7001J PLL
IC6202 : PLL IC
Q6201, Q6202 : PLL LOOP FILTER DC AMP
TXA
TP1 VT
A
B
C
D
1
2
3
4
5
6

- This diagram is viewed from the mounted parts side.

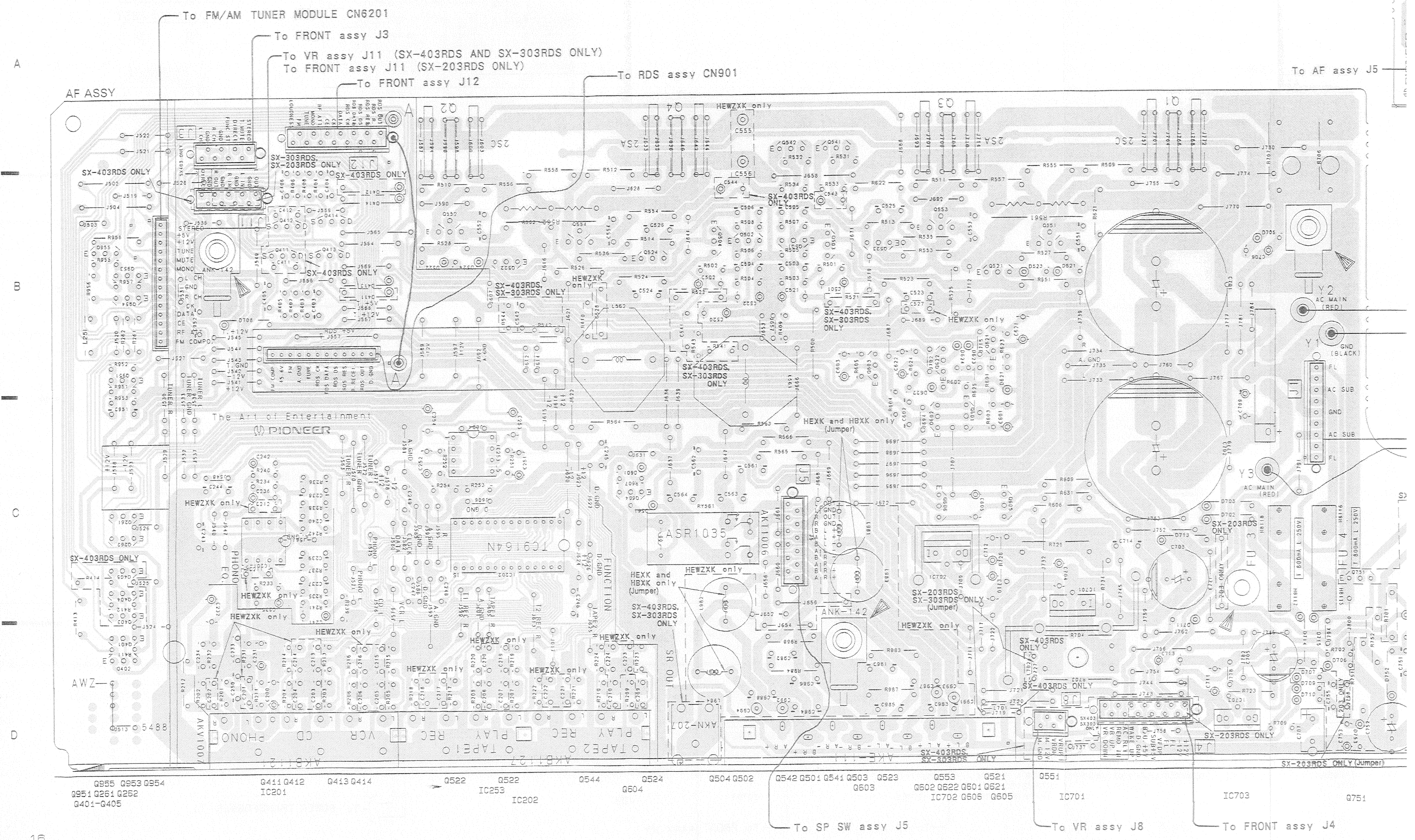
FM/AM TUNER MODULE


A
B
C
D
Q6101
Q6215
Q6204
Q6102
Q6214
Q6104
Q6103
Q6105
IC6202
IC6201
Q6217
Q6202
Q6201
Q6203
Q6218
VR6201
VR6202
HEXK and HBXK only
HEWZXK only
ANP1765-A
CMK-P3X
HEXK and HBXK only
HEXK and HBXK only
LOCAL
12V
HEWZXK only
RDS
LOCAL
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
IF
VT
FM SD
AM/FM
HEWZXK only
HEXK and HBXK only
HEWZXK only
ST
MONO
TUNE
12V
MUTE
To AF assy
5V
7.5V
HEWZXK only
AM SD
7.5V
PIONEER

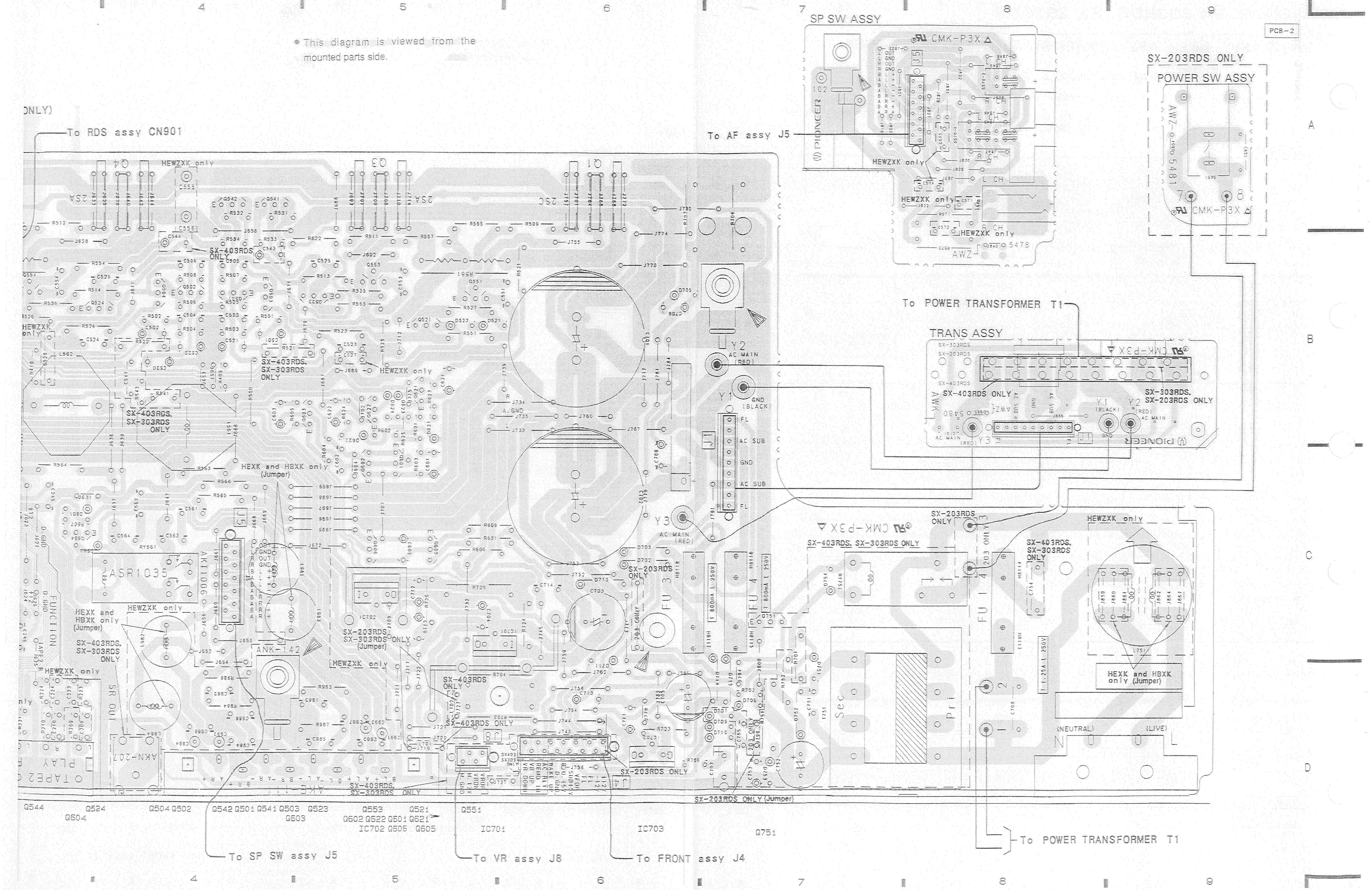

FM/AM TUNER MODULE
ANP1765-A
CMK-P3X
To AF assy
HEXK and HBXK only
HEWZXK only
LOCAL
RDS LOCAL
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
FM SD
AM SD
MF/AM
MONO
TUNE
ST
IC6201
PIONEER
Q6101
Q6215
Q6204
Q6102
Q6214
Q6104
Q6103
Q6105
VR6201
IC6202
IC6201
Q6217
Q6202
Q6201
Q6203
Q6218
VR6202

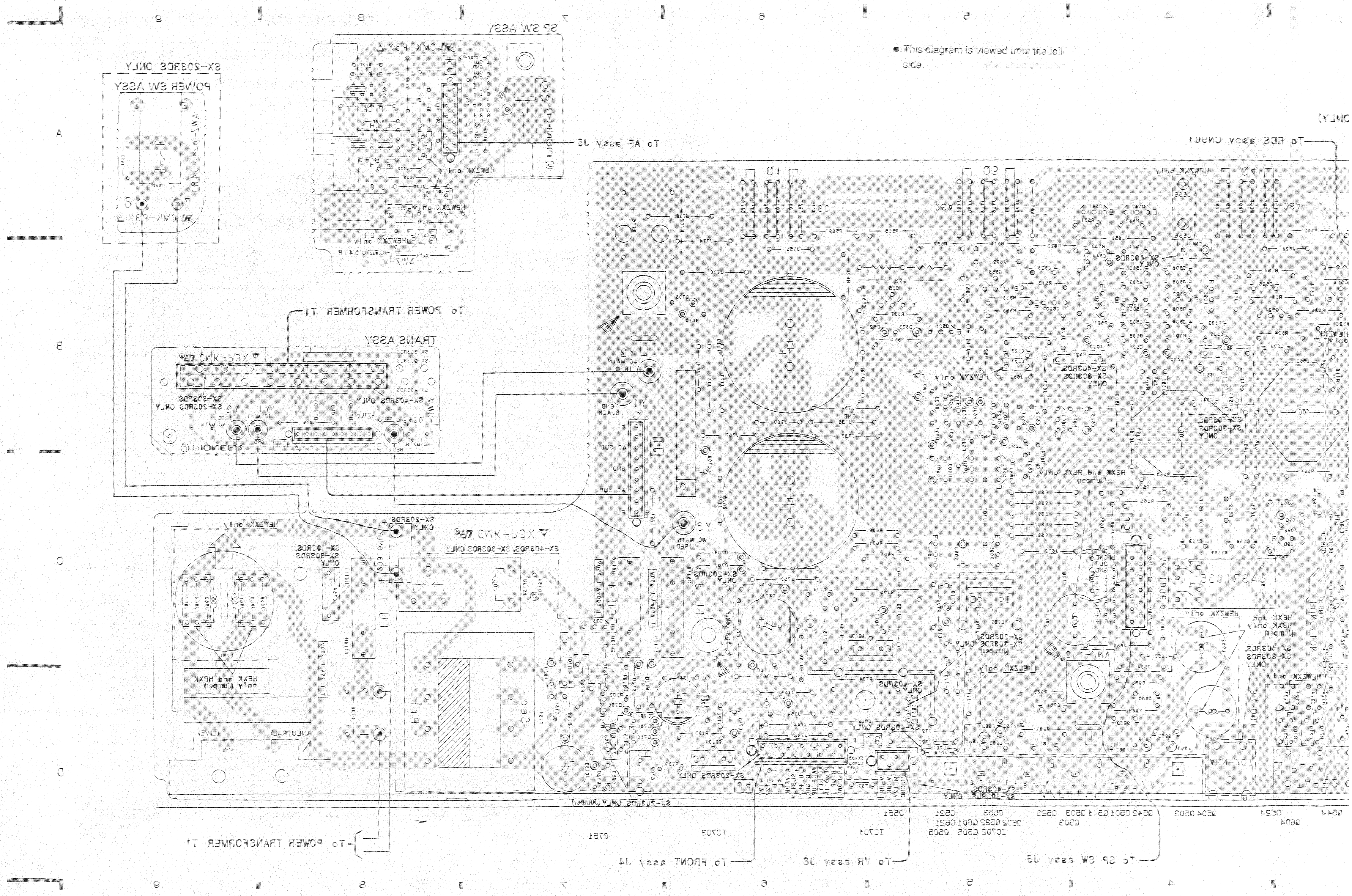
3.3 AF ASSY, SP SW ASSY, POWER SW ASSY AND TRANS ASSY

● This diagram is viewed from the mounted parts side.


To FM/AM TUNER MODULE CN6201
To FRONT assy J3
To VR assy J11 (SX-403RDS AND SX-303RDS ONLY)
To FRONT assy J11 (SX-203RDS ONLY)
To FRONT assy J12
To RDS assy CN901
To AF assy J5
AF ASSY
SX-403RDS ONLY
SX-303RDS, SX-203RDS ONLY
SX-403RDS, SX-303RDS ONLY
SX-403RDS, SX-303RDS ONLY
HEWZXK only
HEXK and HBXK only (Jumper)
SX-203RDS, SX-303RDS ONLY (Jumper)
SX-203RDS ONLY
SX-203RDS ONLY (Jumper)
SX-403RDS ONLY
The Art of Entertainment
PIONEER
ASR1035
TC9164N
AKI1006
ANK-142
AKN-207
AWZ
AKB1127
AWV1007
PHONO EQ.
FUNCTION
SR OUT
PHONO CD VCR REC PLAY REC PLAY
TAPE1 TAPE2
AC MAIN (RED)
GND (BLACK)
AC MAIN (RED)
FL AC SUB GND AC SUB FL
FU 3
FU 4
T 800mA L 250V
T 800mA L 250V
Y1
Y2
Y3
Q1 Q2 Q3 Q4
2SC 2SA 2SA 2SC
Q955 Q953 Q954
Q951 Q261 Q252
Q401-Q405
Q411 Q412
IC201
Q413 Q414
Q522
IC253
IC202
Q544
Q524
Q604
Q504 Q502
Q542 Q501 Q541 Q503 Q523
Q603
Q553 Q521
Q602 Q622 Q501 Q621
IC702 Q506 Q605
Q551
IC701
IC703
Q751
To SP SW assy J5
To VR assy J8
To FRONT assy J4
A B C D
1 2 3 4 5 6 7

• This diagram is viewed from the mounted parts side.


PCB-2
4
5
6
7
8
9
A
B
C
D
ONLY)
To RDS assy CN901
SP SW ASSY
CMK-P3X
HEWZXK only
L CH
R CH
AWZ 5478
To AF assy J5
SX-203RDS ONLY
POWER SW ASSY
AWZ 5481
CMK-P3X
To POWER TRANSFORMER T1
TRANS ASSY
SX-303RDS
SX-203RDS
SX-403RDS ONLY
SX-303RDS, SX-203RDS ONLY
AWZ 5480
AC MAIN (RED)
GND (BLACK)
Y1
Y2
Y3
HEWZXK only
SX-403RDS ONLY
SX-403RDS, SX-303RDS ONLY
HEXK and HBXK only (Jumper)
ASR1035
AKT1006
ANK-142
AKN-207
FUNCTION
PLAY
SR OUT
TAPE2
FL
AC SUB
GND
AC SUB
FL
SX-203RDS, SX-303RDS ONLY (Jumper)
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
SX-203RDS ONLY (Jumper)
FU 3 1 800mA L 250V
FU 4 1 800mA L 250V
FU 1 T 1.25A L 250V
Sec
Pri
(NEUTRAL)
(LIVE)
N
L
Q544
Q604
Q524
Q504
Q502
Q542
Q501
Q541
Q503
Q603
Q523
Q553
Q602
Q522
Q501
IC702
Q505
Q521
Q621
Q605
Q551
IC701
IC703
Q751
To SP SW assy J5
To VR assy J8
To FRONT assy J4
To POWER TRANSFORMER T1

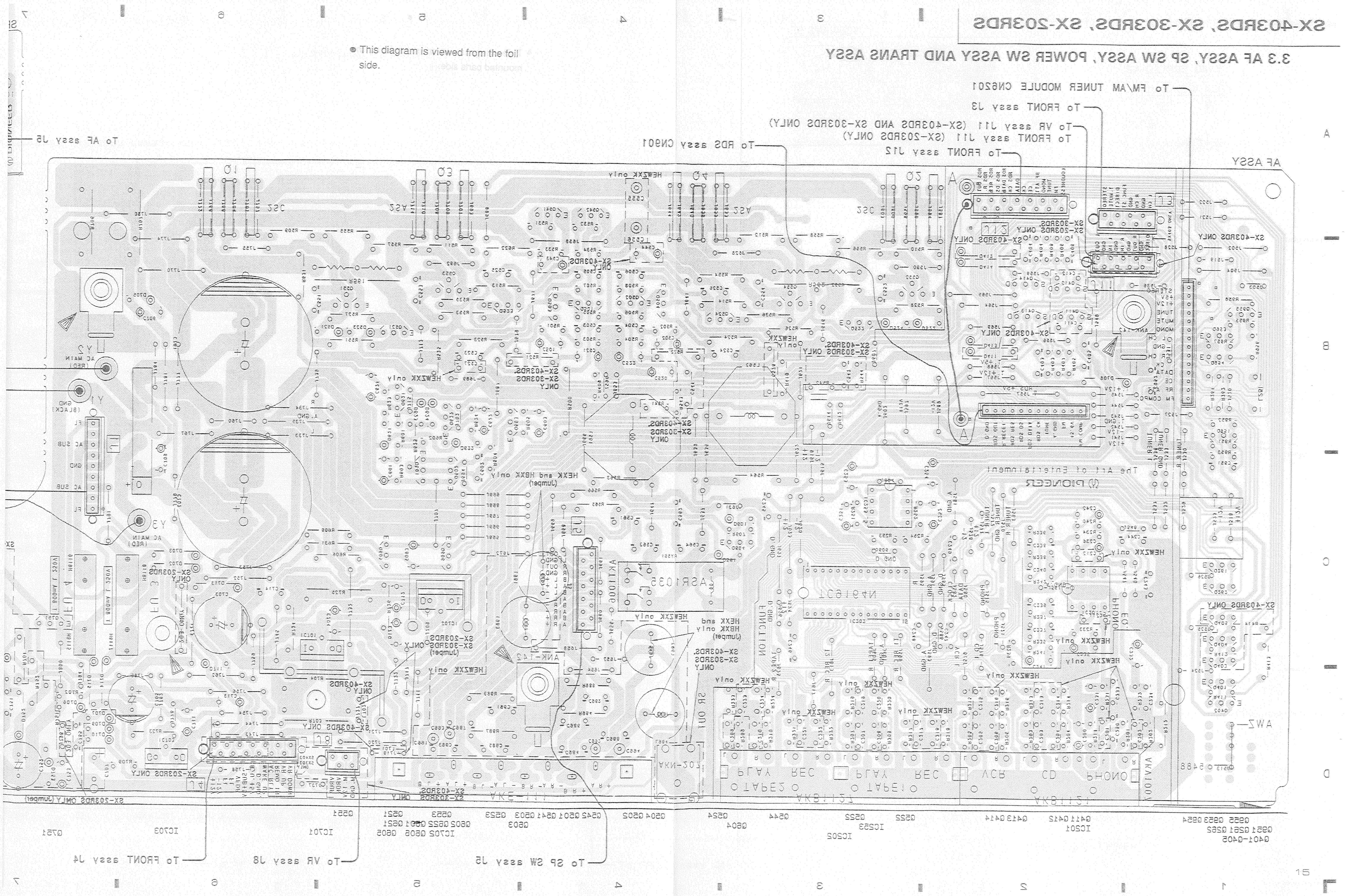

SX-203RDS ONLY
POWER SW ASSY
SP SW ASSY
To AF assy J5
To RDS assy CN901
TRANS ASSY
To POWER TRANSFORMER T1
To FRONT assy J4
To VR assy J8
To SP SW assy J5
HEWZXK only
HEXK and HBXK only (Jumper)
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY (Jumper)
A
B
C
D
9
8
7
6
5
4

● This diagram is viewed from the foil side.

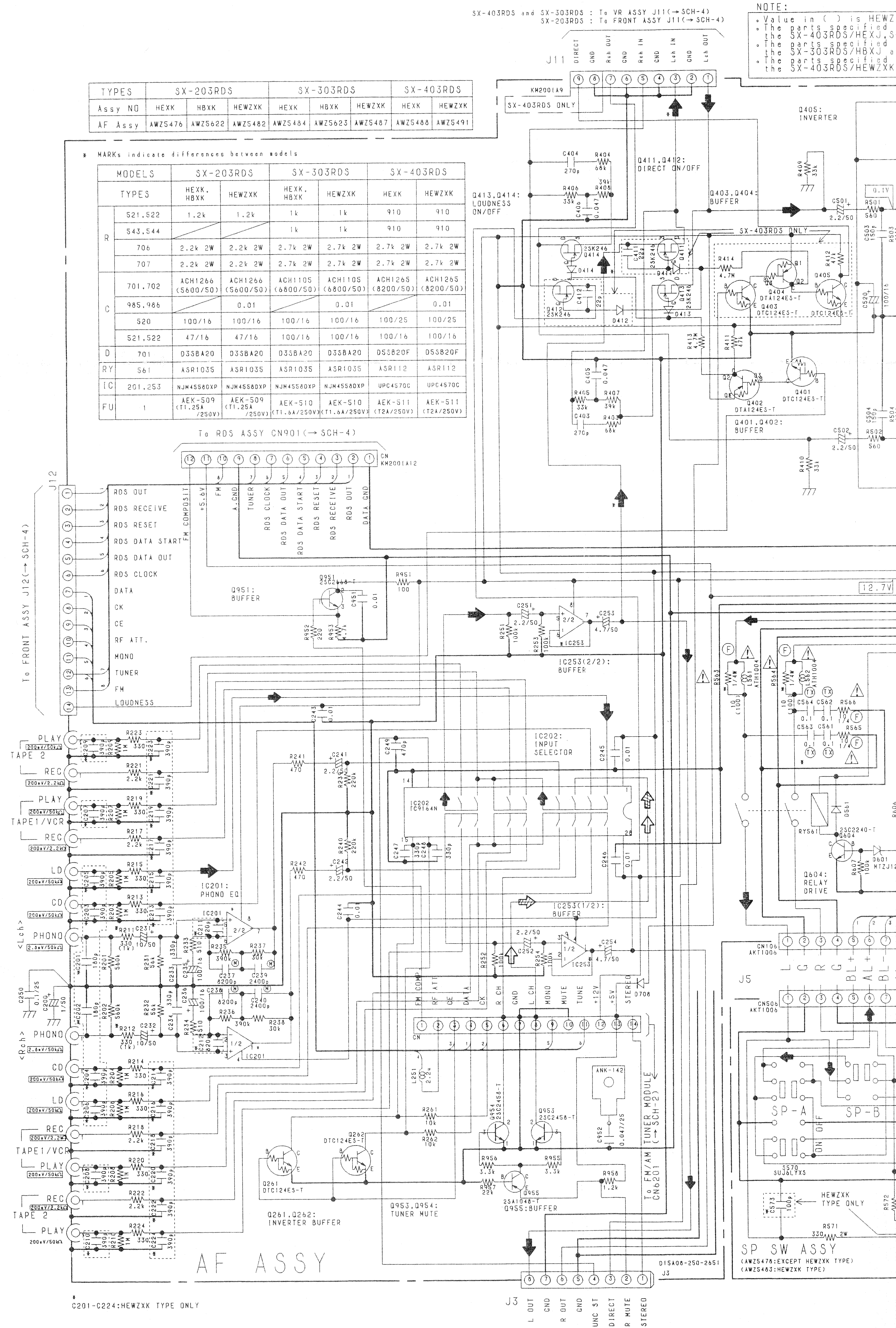
SX-403RDS, SX-303RDS, SX-203RDS

3.3 AF ASSY, SP SW ASSY, POWER SW ASSY AND TRANS ASSY

● This diagram is viewed from the foil side.



To FM/AM TUNER MODULE CN6201
To FRONT assy J3
To VR assy J11 (SX-403RDS AND SX-303RDS ONLY)
To FRONT assy J11 (SX-203RDS ONLY)
To FRONT assy J12
To RDS assy CN901
To AF assy J5
AF ASSY
To FRONT assy J4
To VR assy J8
To SP SW assy J5
PIONEER
The Art of Entertainment
SX-403RDS ONLY
SX-303RDS, SX-203RDS ONLY
HEWZXK only
HEXK and HBXK only (Jumper)
AC MAIN (RED)
GND (BLACK)
AC SUB
FL
GND
Y1
Y2
Y3
ANK-142
AKN-202
AKB1121
AKB1121
AKN1001
ASR1035
AKT1006
NJM4558
TC9162
FUNCTION
PLAY REC PLAY REC VCR CD PHONO
TAPE2 TAPE1
A
B
C
D
1
2
3
4
5
6
7


SX-403RDS and SX-303RDS : To VR ASSY J11(→SCH-4)
SX-203RDS : To FRONT ASSY J11(→SCH-4)
J11
DIRECT
GND
Rch OUT
GND
Rch IN
GND
Lch IN
GND
Lch OUT
KM2001A9
SX-403RDS ONLY
Q405:
INVERTER
Q411,Q412:
DIRECT ON/OFF
Q413,Q414:
LOUDNESS
ON/OFF
Q403,Q404:
BUFFER
SX-403RDS ONLY
Q401,Q402:
BUFFER
Q401
DTC124ES-T
Q402
DTA124ES-T
Q403
DTC124ES-T
Q404
DTA124ES-T
Q411
2SK246
Q412
2SK246
Q413
2SK246
Q414
2SK246
To RDS ASSY CN901(→SCH-4)
CN
KM2001A12
J12
To FRONT ASSY J12(→SCH-4)
RDS OUT
RDS RECEIVE
RDS RESET
RDS DATA START
RDS DATA OUT
RDS CLOCK
DATA
CK
CE
RF ATT.
MONO
TUNER
FM
LOUDNESS
FM COMPOSIT
+5.6V
FM
A.GND
TUNER
RDS CLOCK
RDS DATA OUT
RDS DATA START
RDS RESET
RDS RECEIVE
RDS OUT
DATA GND
Q951:
BUFFER
Q951
2SC2458-T
12.7V
IC253(2/2):
BUFFER
IC253(1/2):
BUFFER
IC202:
INPUT
SELECTOR
IC202
TC9164N
IC201:
PHONO EQ
Q604:
RELAY
DRIVE
RY561
2SC2240-T
D601
MTZJ12
TAPE 2
PLAY
200mV/50kΩ
REC
200mV/2.2kΩ
TAPE1/VCR
LD
CD
<Lch>
PHONO
2.3mV/50kΩ
<Rch>
CN106
AKT1006
CN506
AKT1006
J5
SP-A
SP-B
ON
OFF
S570
SUJ6LYXS
HEWZXK
TYPE ONLY
R571
330 2W
SP SW ASSY
(AWZ5476:EXCEPT HEWZXK TYPE)
(AWZ5483:HEWZXK TYPE)
FM COMP
RF ATT
CE
DATA
CK
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
D708
L251
ANK-142
To FM/AM TUNER MODULE CN6201 (→SCH-2)
Q953,Q954:
TUNER MUTE
Q955:BUFFER
2SA1048-T
Q261,Q262:
INVERTER BUFFER
Q261
DTC124ES-T
Q262
DTC124ES-T
Q953
2SC2458-T
Q954
2SC2458-T
AF ASSY
D15A08-250-2651
J3
L OUT
GND
R OUT
GND
FUNC ST
DIRECT
TUNER MUTE
STEREO
To FRONT ASSY J3(→SCH-4)
1
2
3
4
A
B
C
D
E
F

SX-403RDS and SX-303RDS : To VR ASSY J11(→SCH-4)
SX-203RDS : To FRONT ASSY J11(→SCH-4)

NOTE:
- Value in ( ) is HEWZ
- The parts specified
  the SX-403RDS/HEXJ,S
- The parts specified
  the SX-303RDS/HBXJ a
- The parts specified
  the SX-403RDS/HEWZXK

TYPES	SX-203RDS			SX-303RDS			SX-403RDS	
Assy NO	HEXK	HBXK	HEWZXK	HEXK	HBXK	HEWZXK	HEXK	HEWZXK
AF Assy	AWZ5476	AWZ5622	AWZ5482	AWZ5484	AWZ5623	AWZ5487	AWZ5488	AWZ5491

* MARKs indicate differences between models

MODELS		SX-203RDS		SX-303RDS		SX-403RDS	
TYPES		HEXK, HBXK	HEWZXK	HEXK, HBXK	HEWZXK	HEXK	HEWZXK
R	521,522	1.2k	1.2k	1k	1k	910	910
	543,544			1k	1k	910	910
	706	2.2k 2W	2.2k 2W	2.7k 2W	2.7k 2W	2.7k 2W	2.7k 2W
	707	2.2k 2W	2.2k 2W	2.7k 2W	2.7k 2W	2.7k 2W	2.7k 2W
C	701,702	ACH1266 (5600/50)	ACH1266 (5600/50)	ACH1105 (6800/50)	ACH1105 (6800/50)	ACH1265 (8200/50)	ACH1265 (8200/50)
	985,986		0.01		0.01		0.01
	520	100/16	100/16	100/16	100/16	100/25	100/25
	521,522	47/16	47/16	100/16	100/16	100/16	100/16
D	701	D3SBA20	D3SBA20	D3SBA20	D3SBA20	D5SB20F	D5SB20F
RY	561	ASR1035	ASR1035	ASR1035	ASR1035	ASR112	ASR112
IC	201,253	NJM4558DXP	NJM4558DXP	NJM4558DXP	NJM4558DXP	UPC4570C	UPC4570C
FU	1	AEK-509 (T1.25A /250V)	AEK-509 (T1.25A /250V)	AEK-510 (T1.6A/250V)	AEK-510 (T1.6A/250V)	AEK-511 (T2A/250V)	AEK-511 (T2A/250V)

*C201-C224:HEWZXK TYPE ONLY

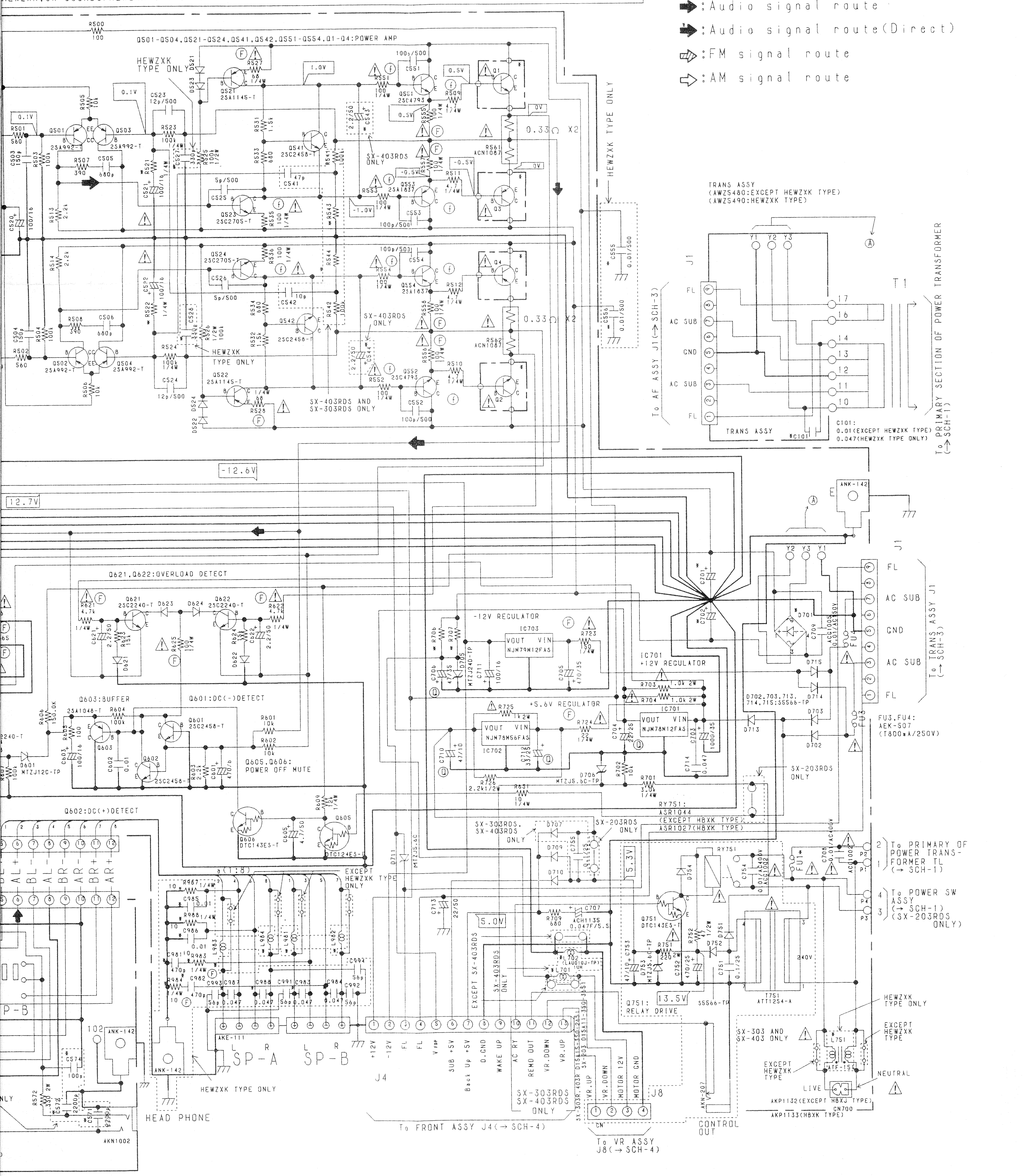
SCH-3

AF ASSY, SP SW ASSY,
POWER SW ASSY, TRANS ASSY

s HEWZXK TYPE.
ified as "HEXJ TYPE" are required for
HEXJ,SX-303RDS/HEXJ and SX-203RDS/HEXJ.
ified as "HBXJ TYPE" are required for
HBXJ and SX-203RDS/HBXJ.
ified as "HEWZXK TYPE" are required for
HEWZXK,SX-303RDS/HEWZXK and SX-203RDS/HEWZXK.

- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXK and HEWZXK.

SCH-3


➡:Audio signal route
➡:Audio signal route(Direct)
⇨:FM signal route
⇨:AM signal route
Q501-Q504,Q521-Q524,Q541,Q542,Q551-Q554,Q1-Q4:POWER AMP
HEWZXK TYPE ONLY
SX-403RDS ONLY
SX-403RDS AND SX-303RDS ONLY
HEWZXK TYPE ONLY
TRANS ASSY (AWZ5480:EXCEPT HEWZXK TYPE) (AWZ5490:HEWZXK TYPE)
To AF ASSY J1(→ SCH-3)
To PRIMARY SECTION OF POWER TRANSFORMER (→ SCH-1)
C101: 0.01(EXCEPT HEWZXK TYPE) 0.047(HEWZXK TYPE ONLY)
T1
J1
FL
AC SUB
GND
-12.6V
12.7V
Q621,Q622:OVERLOAD DETECT
Q603:BUFFER
Q601:DC(-)DETECT
Q605,Q606: POWER OFF MUTE
Q602:DC(+)DETECT
-12V REGULATOR
IC703
+5.6V REGULATOR
IC702
IC701 +12V REGULATOR
D702,703,713, 714,715:SS566-TP
FU3,FU4: AEK-507 (T800mA/250V)
To TRANS ASSY J1 (→ SCH-3)
SX-203RDS ONLY
RY751: ASR1044 (EXCEPT HBXK TYPE) ASR1027(HBXK TYPE)
SX-303RDS, SX-403RDS ONLY
To PRIMARY OF POWER TRANS-FORMER TL (→ SCH-1)
To POWER SW ASSY (→ SCH-1) (SX-203RDS ONLY)
EXCEPT HEWZXK TYPE
5.3V
5.0V
13.5V
Q751: RELAY DRIVE
T751 ATT1254-A
HEWZXK TYPE ONLY
EXCEPT HEWZXK TYPE
SX-303 AND SX-403 ONLY
NEUTRAL
LIVE
AKP1132(EXCEPT HBXK TYPE)
AKP1133(HBXK TYPE)
CN700
SP-A
SP-B
HEAD PHONE
HEWZXK TYPE ONLY
ANK-142
AKE-111
AKN1002
J4
+12V -12V FL FL Vfsp SUB +5V Back Up +5V D.GND WAKE UP AC RY REMO OUT VR.DOWN VR.UP
SX-303RDS SX-403RDS ONLY
To FRONT ASSY J4(→ SCH-4)
J8
VR.UP VR.DOWN MOTOR 12V MOTOR GND
To VR ASSY J8(→ SCH-4)
CONTROL OUT
AKN-207

AF ASSY, SP SW ASSY,
POWER SW ASSY, TRANS ASSY

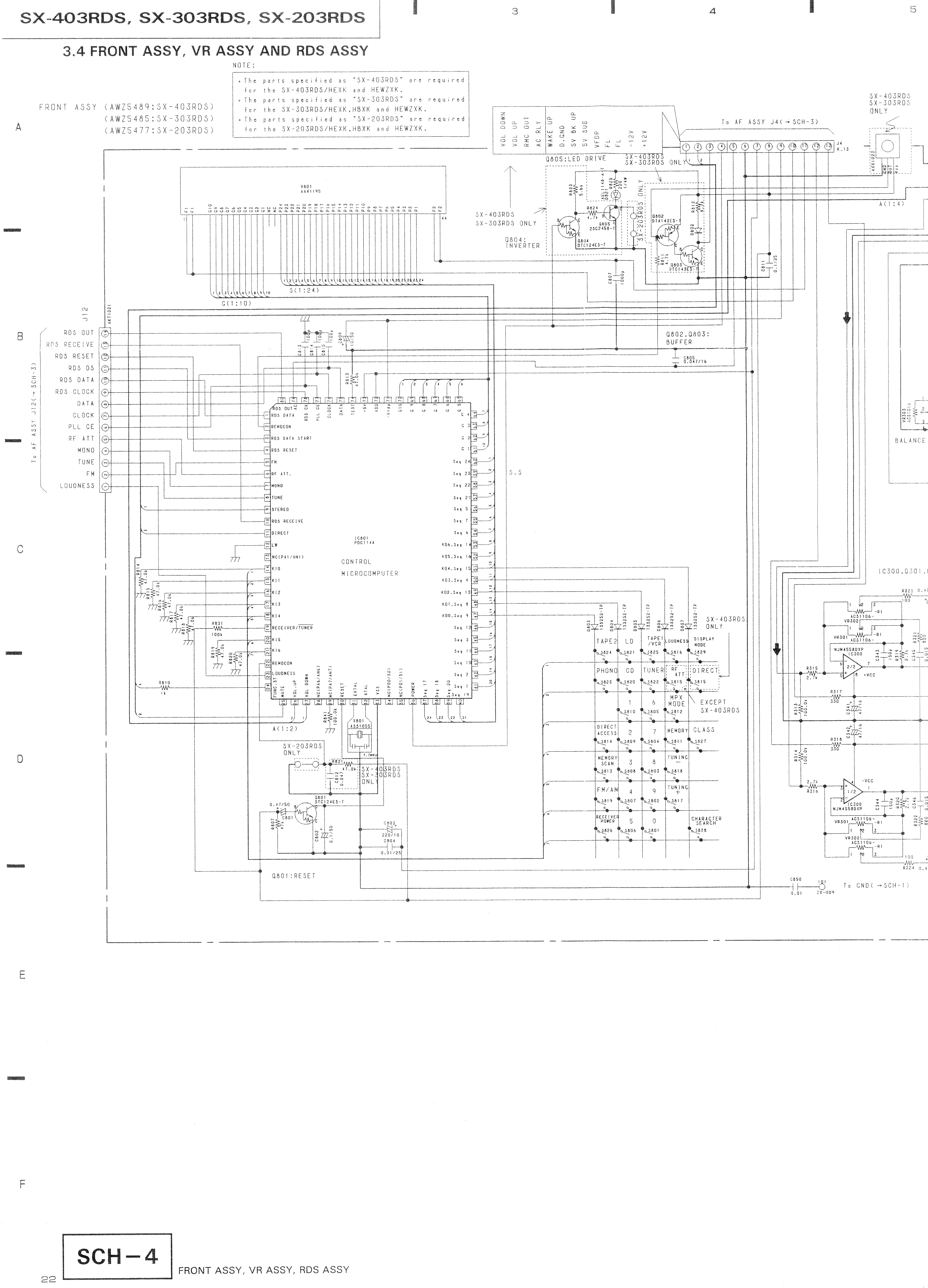
SCH-3

3.4 FRONT ASSY, VR ASSY AND RDS ASSY

NOTE:

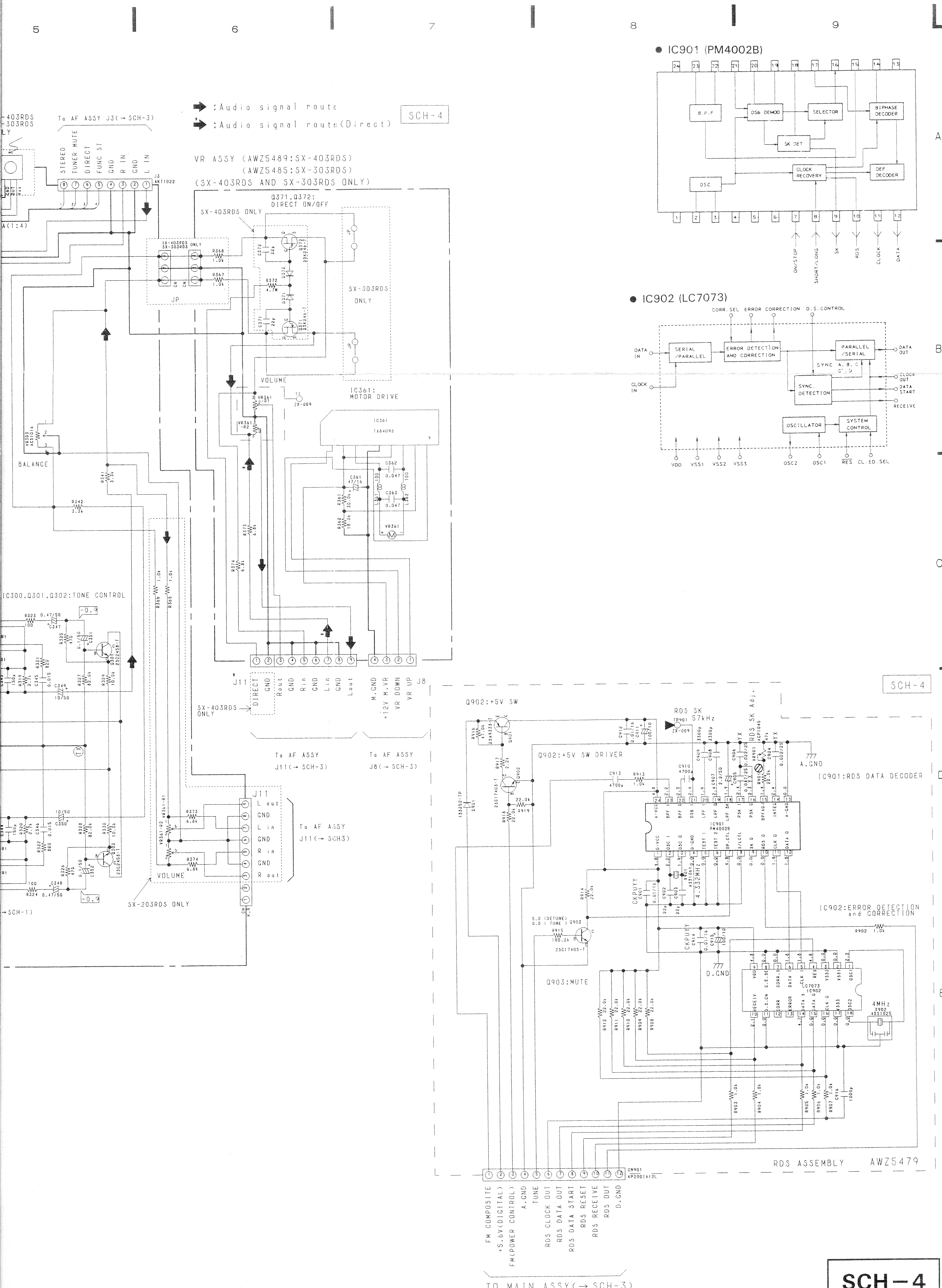
- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXK and HEWZXK.

FRONT ASSY (AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(AWZ5477:SX-203RDS)


3
4
5
A
B
C
D
E
F
1
2
VOL DOWN
VOL UP
RMC OUT
AC RLY
WAKE UP
D.GND
5V BK UP
5V SUB
VFDP
FL
FL
-12V
+12V
To AF ASSY J4(→SCH-3)
J4
SX-403RDS
SX-303RDS
ONLY
A(1:4)
V801
AAV1195
Q805:LED DRIVE
SX-403RDS
SX-303RDS ONLY
SX-203RDS ONLY
Q804:
INVERTER
Q805
2SC2458
Q804
DTC124ES-T
Q802
DTA143ES-T
Q803
DTC143ES-T
C807
C811
S(1:24)
G(1:10)
J12
AKT1021
RDS OUT
RDS RECEIVE
RDS RESET
RDS DS
RDS DATA
RDS CLOCK
DATA
CLOCK
PLL CE
RF ATT
MONO
TUNE
FM
LOUDNESS
To AF ASSY J12(→SCH-3)
Q802,Q803:
BUFFER
C805
0.047/16
IC801
PDC114A
CONTROL
MICROCOMPUTER
RDS OUT
RDS DATA
REMOCON
RDS DATA START
RDS RESET
FM
RF ATT.
MONO
TUNE
STEREO
RDS RECEIVE
DIRECT
LW
NC(PA1/AN1)
KI0
KI1
KI2
KI3
KI4
RECEIVER/TUNER
KI5
KI6
REMOCON
LOUDNESS
FUNC ST
MUTE
VOL UP
VOL DOWN
RESET
EXTAL
XTAL
VSS
POWER
S.S
A(1:2)
X801
AS3105S
SX-203RDS
ONLY
SX-403RDS
SX-303RDS
ONLY
Q801
DTC124ES-T
C801
C802
C803
220/10
C804
0.01/25
Q801:RESET
SX-403RDS
ONLY
TAPE2
LD
TAPE1
/VCR
LOUDNESS
DISPLAY
MODE
PHONO
CD
TUNER
RF
ATT
DIRECT
1
6
MPX
MODE
EXCEPT
SX-403RDS
DIRECT
ACCESS
2
7
MEMORY
CLASS
MEMORY
SCAN
3
8
TUNING
−
FM/AM
4
9
TUNING
+
RECEIVER
POWER
5
0
CHARACTER
SEARCH
C850
0.01
101
ZX-009
To GND(→SCH-1)
IC300,Q301
VR303
BALANCE
VR301
VR302
AC3110G-
NJM4558DXP
IC300
+VCC
-VCC
R315
R317
R318
R313
R314
R316

SCH−4

FRONT ASSY, VR ASSY, RDS ASSY


5
6
7
8
9
A
B
C
D
E
F
● IC901 (PM4002B)
B.P.F
DSB DEMOD
SELECTOR
BIPHASE DECODER
SK DET
OSC
CLOCK RECOVERY
DEF DECODER
ON/STOP
SHORT/LONG
SK
RDS
CLOCK
DATA
● IC902 (LC7073)
CORR.SEL ERROR CORRECTION O.S.CONTROL
DATA IN
SERIAL /PARALLEL
ERROR DETECTION AND CORRECTION
PARALLEL /SERIAL
DATA OUT
SYNC A,B,C C',D
CLOCK IN
SYNC. DETECTION
CLOCK OUT
DATA START
RECEIVE
OSCILLATOR
SYSTEM CONTROL
VDD VSS1 VSS2 VSS3 OSC2 OSC1 RES CL.ED.SEL
SCH-4
➡ :Audio signal route
➡ :Audio signal route(Direct)
-403RDS
-303RDS
LY
To AF ASSY J3(→ SCH-3)
STEREO TUNER MUTE DIRECT FUNC ST GND R IN GND L IN
J3 AKT1022
VR ASSY (AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(SX-403RDS AND SX-303RDS ONLY)
Q371,Q372: DIRECT ON/OFF
SX-403RDS ONLY
SX-403RDS ONLY
SX-303RDS
R368 1.0k
R367 1.0k
R372 4.7M
C372 22p
C371 22p
Q372 2SK246-T
Q371 2SK246-T
JP
SX-303RDS ONLY
VOLUME
VR361 -R1
VR361 -R2
11 ZX-009
IC361: MOTOR DRIVE
IC361 TA8409S
C362 0.047
C361 47/16
C363 0.047
R361 30.0k
R362 10.0k
VR361
M
VR303 AC3101G
BALANCE
R341 3.3k
R342 3.3k
R373 6.8k
R374 6.8k
R366 1.0k
R365 1.0k
IC300,Q301,Q302:TONE CONTROL
R323 0.47/50 100
C347
R325 470
C351 0.1/50
Q301 2SC2458-T
R321 820
C345 0.015
C349 10/50
R327 82.0k
R329 10.0k
-0.9
10/50
C350
R328 82.0k
R330 10.0k
Q302 2SC2458-T
R326 470
C352 0.1/50
C346 0.015
R322 820
R324 100 0.47/50
C348
-0.9
→ SCH-1)
J11
DIRECT GND Rout GND Rin GND Lin GND Lout
M.GND +12V M.VR VR DOWN VR UP J8
SX-403RDS ONLY
To AF ASSY J11(→ SCH-3)
To AF ASSY J8(→ SCH-3)
J11
L out GND L in GND R in GND R out
To AF ASSY J11(→ SCH3)
VR361-R1
VR361-R2
R373 6.8k
R374 6.8k
VOLUME
SX-203RDS ONLY
SCH-4
Q902:+5V SW
R916 4.7k
2SA933S-T
Q901
R917 2.2k
Q902
2SC1740S-T
R918 22.0k
R919 22.0k
133252-TP
Q902:+5V SW DRIVER
RDS SK 57kHz
TP901
ZX-009
C912 0.01/16
C911 100/10
C909 3300p
C908 3300p
YX
RDS SK Adj.
VCP1045 VR901 47k
A.GND
C910 4700p
C913 4700p
R913 1.0k
C907 2.2/50
C905 0.022/25
C904 0.022/25
IC901:RDS DATA DECODER
A-VCC BPF BPF O DSB I LPF LPF SK PSK I PSK O BPFAD INTEG A-GND
IC901 PM4002B
D-VCC OSC I OSC O D-GND TEST 1 TEST 2 OP.CTL S/LCTL SK O RDS O CLK O DATA O
X901 4.332MHz
CKPUYY
R914 22.0k
C901 0.01/16
C902 22p
C903 22p
5.0 (DETUNE)
0.0 (TUNE)
Q903
R915 100.0k
2SC1740S-T
CKPUYY
C914 0.01/16
C915 100/10
D.GND
Q903:MUTE
R912 22.0k
R911 22.0k
R910 22.0k
R909 22.0k
R908 22.0k
IC902:ERROR DETECTION and CORRECTION
R902 1.0k
VDD C.E.SEL CORR.SEL DATA I CLK I RES VSS2 OSC1
LC7073 IC902
RECEIV O.S.CN ERROR DATA S DATA O CLK O VSS3 OSC2
4MHz X902 ASS1025
R903 1.0k
R904 1.0k
R905 1.0k
R906 1.0k
R907 1.0k
C916 1000p
RDS ASSEMBLY AWZ5479
CN901 KP200I412L
FM COMPOSITE
+5.6V(DIGITAL)
FM(POWER CONTROL)
A.GND
TUNE
RDS CLOCK OUT
RDS DATA OUT
RDS DATA START
RDS RESET
RDS RECEIVE
RDS OUT
D.GND
TO MAIN ASSY(→ SCH-3)

SCH-4

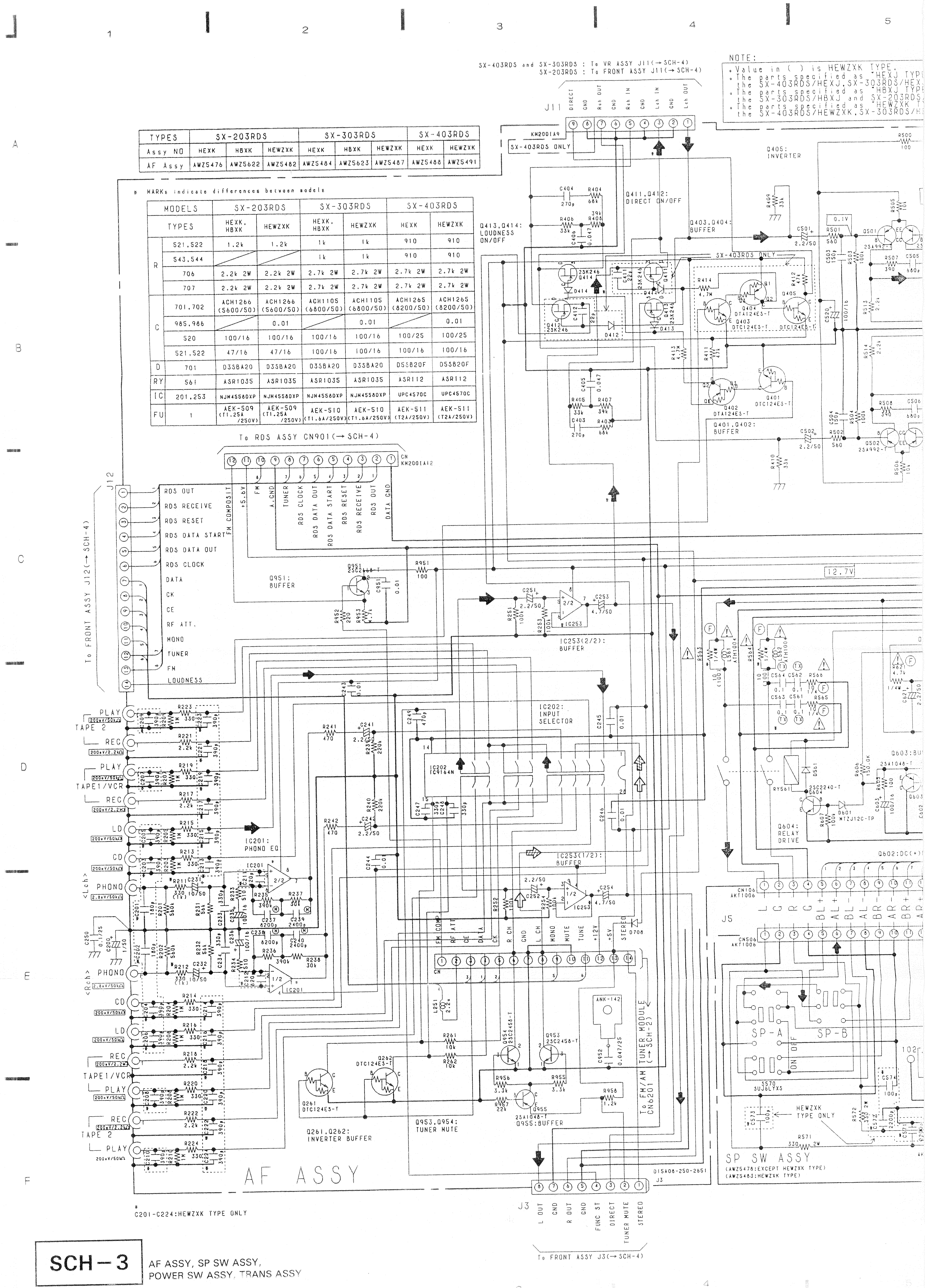
FRONT ASSY, VR ASSY, RDS ASSY

NOTE:
- Value in ( ) is HEWZXK TYPE.
- The parts specified as *HEXJ TYP the SX-403RDS/HEXJ, SX-303RDS/HEX
- The parts specified as *HBXJ TYP the SX-303RDS/HBXJ and SX-203RDS
- The parts specified as *HEWZXK T the SX-403RDS/HEWZXK, SX-303RDS/H

TYPES	SX-203RDS			SX-303RDS			SX-403RDS	
Assy NO	HEXK	HBXK	HEWZXK	HEXK	HBXK	HEWZXK	HEXK	HEWZXK
AF Assy	AWZ5476	AWZ5622	AWZ5482	AWZ5484	AWZ5623	AWZ5487	AWZ5488	AWZ5491

* MARKs indicate differences between models

MODELS		SX-203RDS		SX-303RDS		SX-403RDS	
TYPES		HEXK, HBXK	HEWZXK	HEXK, HBXK	HEWZXK	HEXK	HEWZXK
R	521, 522	1.2k	1.2k	1k	1k	910	910
	543, 544			1k	1k	910	910
	706	2.2k 2W	2.2k 2W	2.7k 2W	2.7k 2W	2.7k 2W	2.7k 2W
	707	2.2k 2W	2.2k 2W	2.7k 2W	2.7k 2W	2.7k 2W	2.7k 2W
C	701, 702	ACH1266 (5600/50)	ACH1266 (5600/50)	ACH1105 (6800/50)	ACH1105 (6800/50)	ACH1265 (8200/50)	ACH1265 (8200/50)
	985, 986		0.01		0.01		0.01
	520	100/16	100/16	100/16	100/16	100/25	100/25
	521, 522	47/16	47/16	100/16	100/16	100/16	100/16
D	701	D3SBA20	D3SBA20	D3SBA20	D3SBA20	D5SB20F	D5SB20F
RY	561	ASR1035	ASR1035	ASR1035	ASR1035	ASR112	ASR112
IC	201, 253	NJM4558DXP	NJM4558DXP	NJM4558DXP	NJM4558DXP	UPC4570C	UPC4570C
FU	1	AEK-509 (T1.25A /250V)	AEK-509 (T1.25A /250V)	AEK-510 (T1.6A/250V)	AEK-510 (T1.6A/250V)	AEK-511 (T2A/250V)	AEK-511 (T2A/250V)


1
2
3
4
5
A
B
C
D
E
F
SX-403RDS and SX-303RDS : To VR ASSY J11(→ SCH-4)
SX-203RDS : To FRONT ASSY J11(→ SCH-4)
J11
DIRECT
GND
Rch OUT
GND
Rch IN
GND
Lch IN
GND
Lch OUT
KM2001A9
SX-403RDS ONLY
Q405: INVERTER
Q411, Q412: DIRECT ON/OFF
Q413, Q414: LOUDNESS ON/OFF
Q403, Q404: BUFFER
SX-403RDS ONLY
Q401, Q402: BUFFER
To RDS ASSY CN901(→ SCH-4)
CN KM2001A12
FM COMPOSIT
+5.6V
FM
A.GND
TUNER
RDS CLOCK
RDS DATA OUT
RDS DATA START
RDS RESET
RDS RECEIVE
RDS OUT
DATA GND
J12
To FRONT ASSY J12(→ SCH-4)
RDS OUT
RDS RECEIVE
RDS RESET
RDS DATA START
RDS DATA OUT
RDS CLOCK
DATA
CK
CE
RF ATT.
MONO
TUNER
FM
LOUDNESS
Q951: BUFFER
12.7V
IC253(2/2): BUFFER
IC202: INPUT SELECTOR
IC202 TC9164N
IC201: PHONO EQ
IC253(1/2): BUFFER
PLAY
TAPE 2
REC
PLAY
TAPE1/VCR
REC
LD
CD
<Lch>
PHONO
<Rch>
PHONO
CD
LD
REC
TAPE1/VCR
PLAY
REC
TAPE 2
PLAY
FM COMP
RF ATT
CE
DATA
CK
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
ANK-142
TUNER MODULE (→ SCH-2)
To FM/AM CN6201
Q953, Q954: TUNER MUTE
Q955: BUFFER
Q261, Q262: INVERTER BUFFER
AF ASSY
J3
L OUT
GND
R OUT
GND
FUNC ST
DIRECT
TUNER MUTE
STEREO
01SA06-250-2651
To FRONT ASSY J3(→ SCH-4)
Q604: RELAY DRIVE
Q603
Q602: DC(+)
CN106 AKT1006
J5
CN506 AKT1006
L
G
R
C
BL+
AL+
BL-
AL-
BR-
AR-
BR+
AR+
SP-A
SP-B
ON
OFF
S570 SUJ6LYX5
HEWZXK TYPE ONLY
SP SW ASSY
(AWZ5478:EXCEPT HEWZXK TYPE)
(AWZ5483:HEWZXK TYPE)

* C201-C224:HEWZXK TYPE ONLY

SCH-3

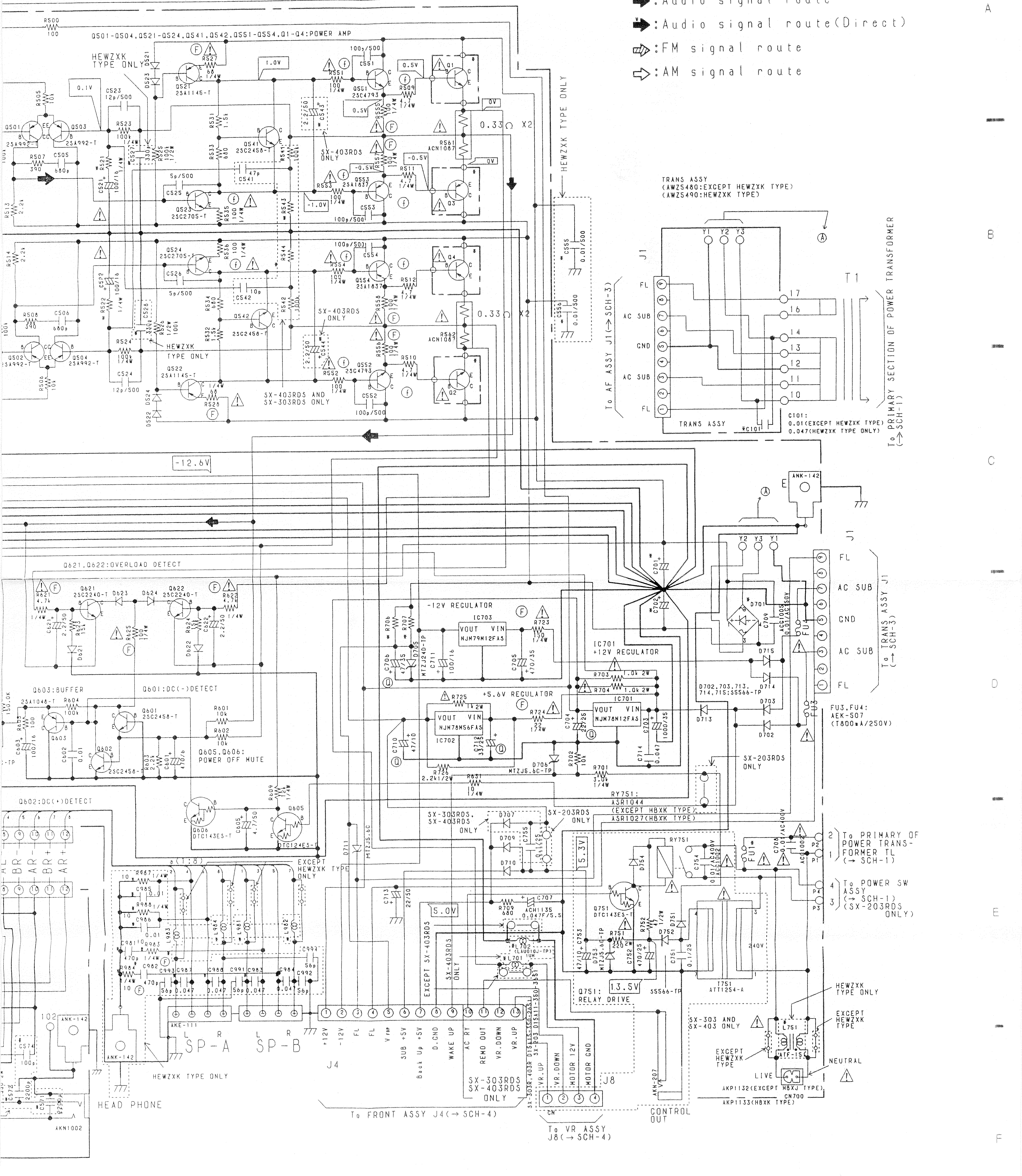
AF ASSY, SP SW ASSY,
POWER SW ASSY, TRANS ASSY

K TYPE.
s "HEXJ TYPE" are required for
-303RDS/HEXJ and SX-203RDS/HEXJ.
s "HBXJ TYPE" are required for
a SX-203RDS/HBXJ.
s "HEWZXK TYPE" are required for
SX-303RDS/HEWZXK and SX-203RDS/HEWZXK.

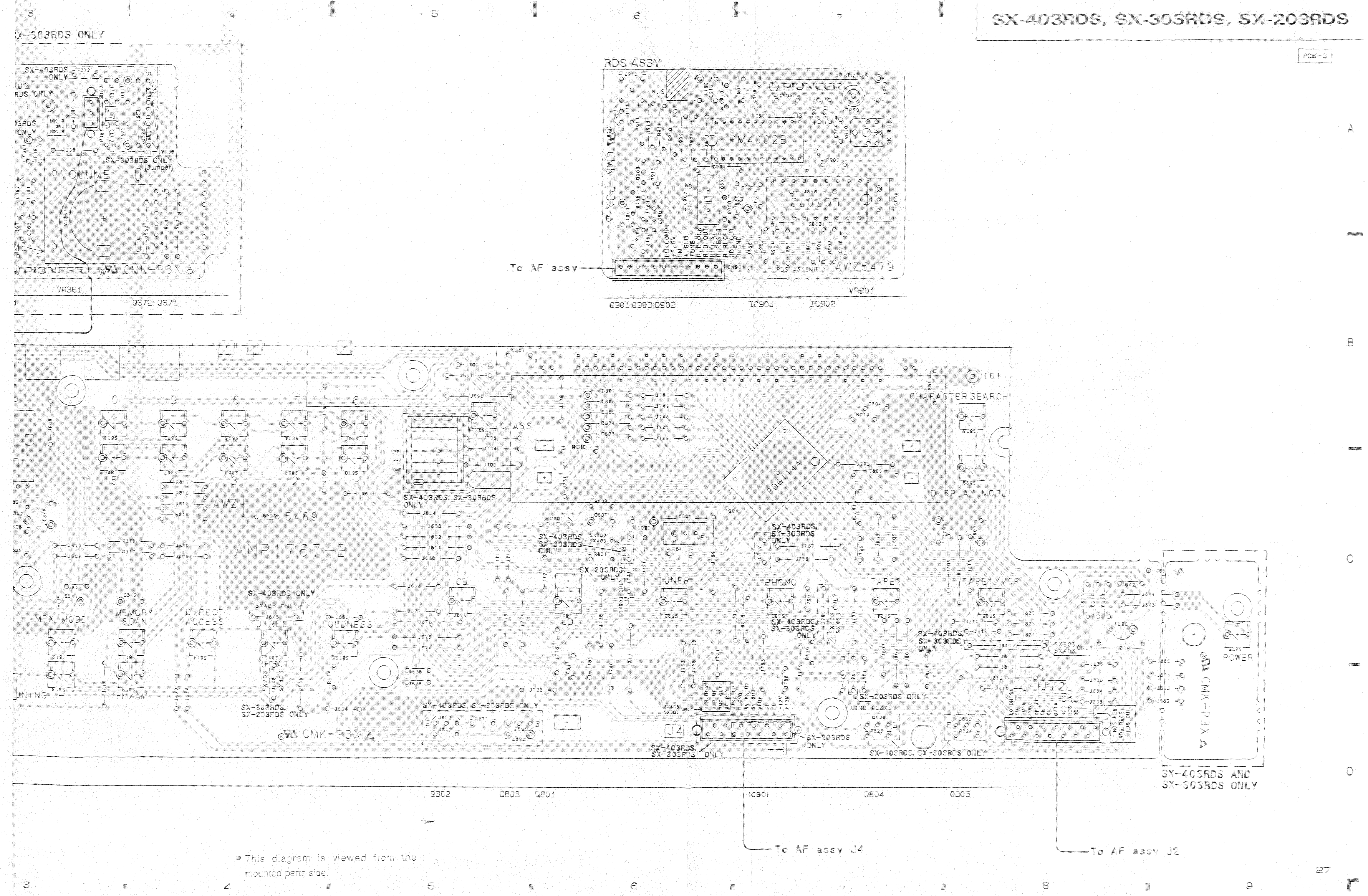
- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK, HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK, HBXK and HEWZXK.

SCH-3

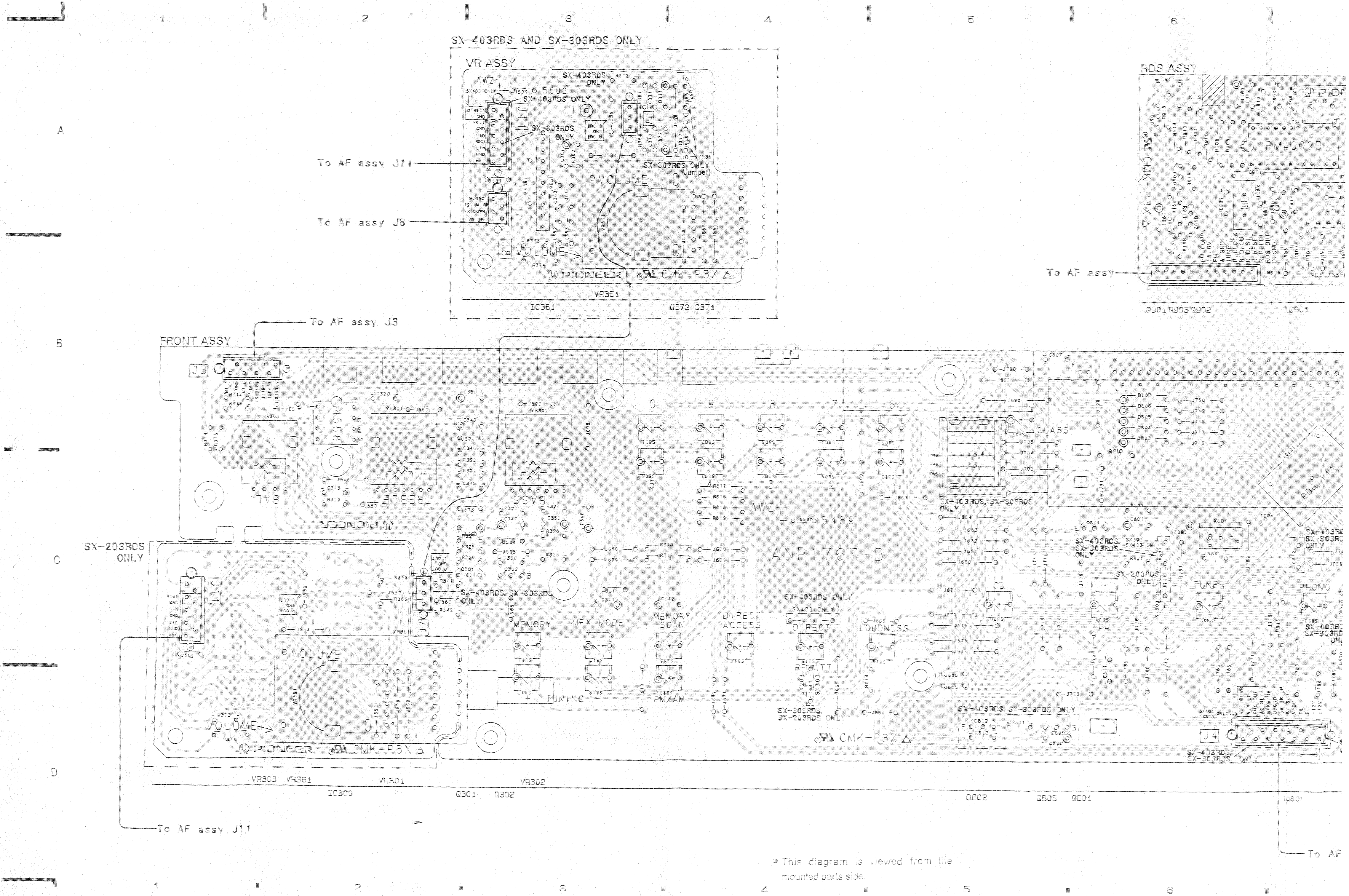
➡ :Audio signal route
➡* :Audio signal route(Direct)
⇨ :FM signal route
⇨ :AM signal route



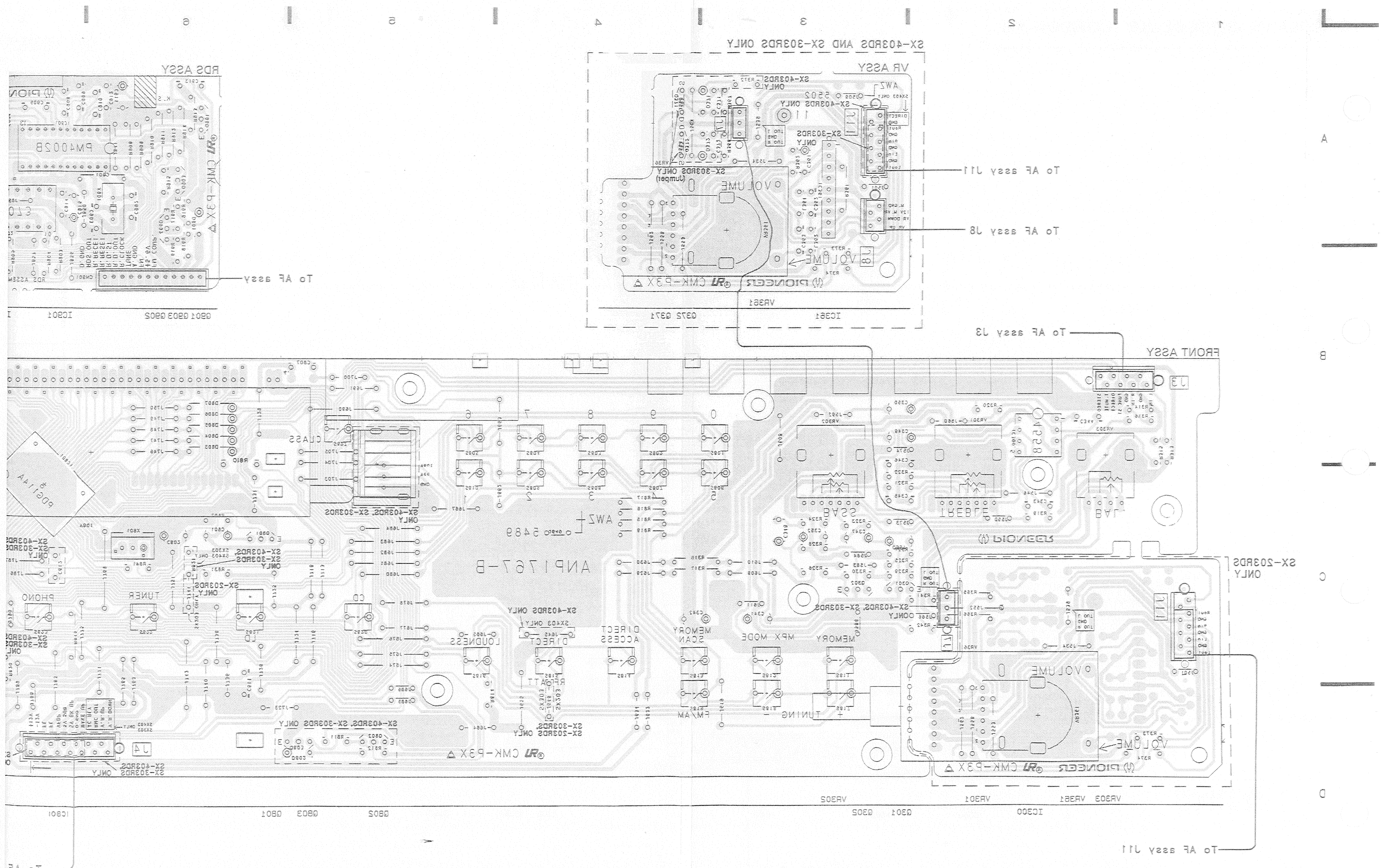
Q501-Q504, Q521-Q524, Q541, Q542, Q551-Q554, Q1-Q4:POWER AMP
HEWZXK TYPE ONLY
SX-403RDS ONLY
SX-403RDS AND SX-303RDS ONLY
TRANS ASSY (AWZ5480:EXCEPT HEWZXK TYPE) (AWZ5490:HEWZXK TYPE)
T1
To PRIMARY SECTION OF POWER TRANSFORMER (→ SCH-1)
To AF ASSY J1(→ SCH-3)
C101: 0.01(EXCEPT HEWZXK TYPE) 0.047(HEWZXK TYPE ONLY)
-12.6V
Q621, Q622:OVERLOAD DETECT
Q603:BUFFER
Q601:DC(-)DETECT
Q605, Q606: POWER OFF MUTE
Q602:DC(+)DETECT
-12V REGULATOR
+12V REGULATOR
+5.6V REGULATOR
IC703 NJM79M12FA5
IC701 NJM78M12FA5
IC702 NJM78M56FA5
To TRANS ASSY J1 (→ SCH-3)
FU3, FU4: AEK-507 (T800mA/250V)
D702, 703, 713, 714, 715: SS566-TP
SX-203RDS ONLY
RY751: ASR1044 (EXCEPT HBXK TYPE) ASR1027(HBXK TYPE)
SX-303RDS, SX-403RDS ONLY
To PRIMARY OF POWER TRANS-FORMER TL (→ SCH-1)
To POWER SW ASSY (→ SCH-1) (SX-203RDS ONLY)
Q751: RELAY DRIVE
13.5V
5.3V
5.0V
EXCEPT SX-403RDS
SX-403RDS ONLY
EXCEPT HEWZXK TYPE
HEWZXK TYPE ONLY
SX-303 AND SX-403 ONLY
LIVE
NEUTRAL
AKP1132(EXCEPT HBXJ TYPE) CN700 AKP1133(HBXK TYPE)
CONTROL OUT
To VR ASSY J8(→ SCH-4)
To FRONT ASSY J4(→ SCH-4)
SX-303RDS SX-403RDS ONLY
J4
J8
+12V
-12V
FL
V FDP
SUB +5V
Back Up +5V
D.GND
WAKE UP
AC RY
REMO OUT
VR.DOWN
VR.UP
MOTOR 12V
MOTOR GND
SP-A
SP-B
HEAD PHONE
AKN1002


3
4
5
6
7
8
9
A
B
C
D
X-303RDS ONLY
SX-403RDS ONLY
SX-303RDS ONLY (Jumper)
VOLUME
PIONEER
CMK-P3X
VR361
Q372 Q371
RDS ASSY
57kHz SK
PM4002B
LC7073
SK Adj.
To AF assy
CN901
RDS ASSEMBLY AWZ5479
VR901
Q901 Q903 Q902
IC901
IC902
CHARACTER SEARCH
CLASS
DISPLAY MODE
PDG114A
SX-403RDS, SX-303RDS ONLY
AWZ 5489
ANP1767-B
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
CD
TUNER
PHONO
TAPE2
TAPE1/VCR
MPX MODE
MEMORY SCAN
DIRECT ACCESS
SX-403RDS ONLY
SX403 ONLY
DIRECT
LOUDNESS
LD
RF ATT
SX-303RDS, SX-203RDS ONLY
FM/AM
TUNING
SX-403RDS, SX-303RDS ONLY
J4
J12
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
SX203 ONLY
SX-203RDS ONLY
SX-403RDS, SX-303RDS ONLY
POWER
SX-403RDS AND SX-303RDS ONLY
Q802
Q803 Q801
IC801
Q804
Q805
To AF assy J4
To AF assy J2
0
9
8
7
6
5
4
3
2
1

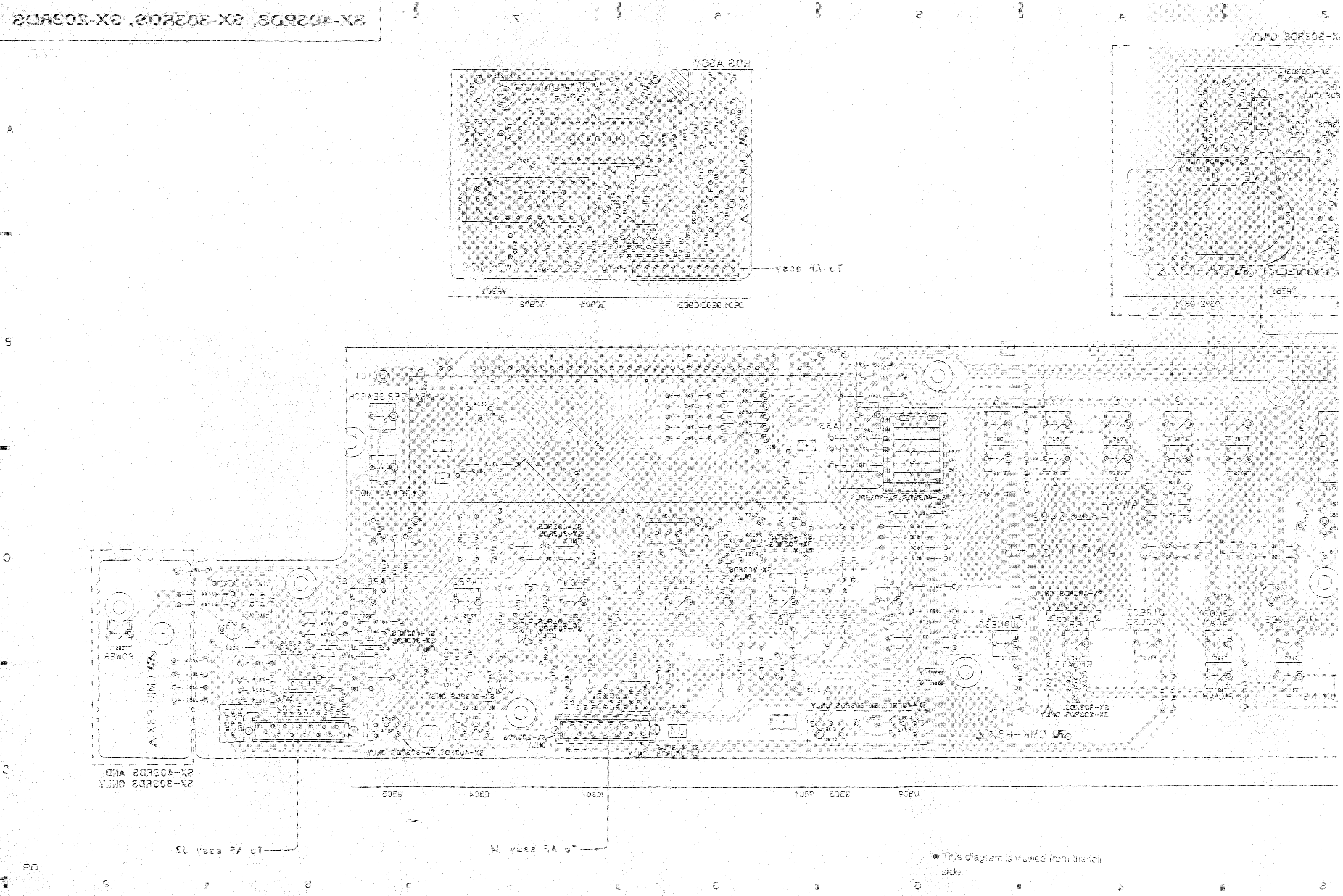
• This diagram is viewed from the mounted parts side.


SX-403RDS AND SX-303RDS ONLY
VR ASSY
AWZ
SX-403RDS ONLY
SX-303RDS ONLY
SX-303RDS ONLY (Jumper)
VOLUME
PIONEER
CMK-P3X
To AF assy J11
To AF assy J8
VR361
IC361
Q372 Q371
RDS ASSY
PM4002B
To AF assy
Q901 Q903 Q902
IC901
To AF assy J3
FRONT ASSY
J3
BAL
TREBLE
BASS
4558
SX-203RDS ONLY
0
9
8
7
6
5
4
3
2
1
CLASS
AWZ
5489
ANP1767-B
SX-403RDS, SX-303RDS ONLY
SX-403RDS ONLY
MEMORY
MPX MODE
MEMORY SCAN
DIRECT ACCESS
DIRECT
LOUDNESS
RF ATT
CD
LD
TUNER
PHONO
TUNING
FM/AM
SX-303RDS, SX-203RDS ONLY
SX-203RDS ONLY
PDG114A
J4
SX-403RDS, SX-303RDS ONLY
VR303 VR361
IC300
VR301
Q301 Q302
VR302
Q802
Q803 Q801
IC801
To AF assy J11
To AF
1
2
3
4
5
6
A
B
C
D

- This diagram is viewed from the mounted parts side.


SX-403RDS AND SX-303RDS ONLY
VR ASSY
RDS ASSY
FRONT ASSY
To AF assy J11
To AF assy J8
To AF assy J3
To AF assy
ANP1767-B
VOLUME
BASS
TREBLE
BAL
PHONO
TUNER
CD
LOUDNESS
DIRECT
DIRECT ACCESS
MEMORY SCAN
MPX MODE
MEMORY
TUNING
CLASS
SX-203RDS ONLY
CMK-P3X

- This diagram is viewed from the foil side.


RDS ASSY
PM4002B
LC7073
To AF assy
SX-303RDS ONLY
VOLUME
CHARACTER SEARCH
DISPLAY MODE
CLASS
PDG114A
ANP1767-B
TAPE1/VCR
TAPE2
PHONO
TUNER
CD
LOUDNESS
DIRECT
DIRECT ACCESS
MEMORY SCAN
MPX MODE
RF ATT
FM/AM
POWER
SX-403RDS AND SX-303RDS ONLY
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
To AF assy J2
To AF assy J4
A
B
C
D
9
8
7
6
5
4
3

● This diagram is viewed from the foil side.

4. PCB PARTS LIST
(FOR SX−403RDS/HEXK, SX−303RDS/HEXK AND SX−203RDS/HEXK)

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10^1 → 561 ························ RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ *J*
47kΩ → 47 × 10^3 → 473 ························ RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ *J*
0.5Ω → 0R5 ·· RN2H $\boxed{0}\boxed{R}\boxed{5}$ *K*
1Ω → 010 ·· RS1P $\boxed{0}\boxed{1}\boxed{0}$ *K*

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 × 10^1 → 5621 ·················· RM1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ *F*

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
NSP		AF COMPLEX ASSY (For SX−403RDS)	AWK1819
		├─SP SW ASSY	AWZ5478
		├─RDS ASSY	AWZ5479
		├─TRANS ASSY	AWZ5480
		├─AF ASSY	AWZ5488
		├─FRONT ASSY	AWZ5489
		└─VR ASSY	AWZ5502
NSP		AF COMPLEX ASSY (For SX−303RDS)	AWK1817
		├─SP SW ASSY	AWZ5478
		├─RDS ASSY	AWZ5479
		├─TRANS ASSY	AWZ5480
		├─AF ASSY	AWZ5484
		├─FRONT ASSY	AWZ5485
		└─VR ASSY	AWZ5486
NSP		AF COMPLEX ASSY (For SX−203RDS)	AWK1815
		├─SP SW ASSY	AWZ5478
		├─RDS ASSY	AWZ5479
		├─TRANS ASSY	AWZ5480
		├─AF ASSY	AWZ5476
		├─FRONT ASSY	AWZ5477
		└─POWER SW ASSY	AWZ5481
		FM/AM TUNER MODULE	AXQ3227

SP SW ASSY

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S570		SUJ6LYXS

RESISTORS

Mark	No.	Description	Parts No.
	R571, R572		RS2LMF331J

OTHERS

Mark	No.	Description	Parts No.
		JACK (HEADPHONE)	AKN1002

RDS ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC902		LC7073
	IC901		PM4002B
	Q901		2SA933S
	Q902, Q903		2SC1740S
	D901		1SS252

CAPACITORS

Mark	No.	Description	Parts No.
	C902, C903		CCDCH220J50
	C911, C915		CEAS101M10
	C907		CEAS2R2M50
	C916		CKDYB102K50
	C908, C909		CKDYB332K50
	C910, C913		CKDYB472K50
	C904, C906		CKDYX223M25
	C905		CKDYX473M25
	C901, C912, C914		CKPUYY103M16

RESISTORS

Mark	No.	Description	Parts No.
	VR901	(2.2k)	ACP1045
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	X902	(4.00MHZ)	ASS1025
	X901	(4.332MHZ)	ASS1061
	CN901	12P SOCKET	KP200IA12L

TRANS ASSY

CAPACITORS

Mark	No.	Description	Parts No.
	C101		CQMXA103J100

OTHERS

Mark	No.	Description	Parts No.
		CABLE HOLDER (9P)	AKT1082

AF ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC201	(For SX−403RDS)	UPC4570C
	IC201	(For SX−303RDS and SX−203RDS)	NJM4558DXP
	IC701		NJM78M12FAS
	IC702		NJM78M56FAS
	IC703		NJM79M12FA
	IC202		TC9164N
	IC253	(For SX−403RDS)	UPC4570C
	IC253	(For SX−303RDS and SX−203RDS)	NJM4558DXP
	Q603, Q955		2SA1048
	Q521, Q522		2SA1145
	Q553, Q554		2SA1837
	Q501−Q504		2SA992
	Q604, Q621, Q622		2SC2240
	Q541, Q542, Q601, Q602		2SC2458
	Q953, Q954		2SC2458
	Q951		2SC2668

Mark	No. Description	Parts No.
	Q523, Q524	2SC2705
	Q551, Q552	2SC4793
	Q411, Q412 (SX−403RDS only)	2SK246
	Q413, Q414	2SK246
	Q402	DTA124ES
	Q404 (SX−403RDS only)	DTA124ES
	Q261, Q262, Q401	DTC124ES
	Q403, Q405 (SX−403RDS only)	DTC124ES
	Q605	DTC124ES
	Q606	DTC143ES
	Q751 (SX−403RDS and SX−303RDS only)	DTC143ES
	D411, D412 (SX−403RDS only)	1SS252
	D413, D414, D521−D524, D561	1SS252
	D621−D624, D708−D710	1SS252
	D707, D751, D754 (SX−403RDS and SX−303RDS only)	1SS252
	D701 (For SX−403RDS)	D5SB20F
	D701 (For SX−303RDS and SX−203RDS)	D3SBA20 (A)
	D601	MTZJ12C
	D705	MTZJ24D
	D711	MTZJ5.6C
	D706	MTZJ5.6C
	D753 (SX−403RDS and SX−303RDS only)	MTZJ5.6C
	D702, D703, D713−D715	S5566
	D752 (SX−403RDS and SX−303RDS only)	S5566

COILS AND FILTERS

	L251	LAU2R2J
	L561, L562 (0.7uH)	ATH1004
	L701, L702 (SX−403RDS only)	LAU010J

TRANSFORMERS

	T751 (SX−403RDS and SX−303RDS only)	ATT1254

SWITCHES AND RELAYS

	RY561 (For SX−403RDS)	ASR−112
	RY561 (For SX−303RDS and SX−203RDS)	ASR1035
	RY751 (SX−403RDS and SX−303RDS only)	ASR1044

CAPACITORS

⚠	C708 (0.01/AC400V)	ACG1002
⚠	C754 (0.01/AC400V) (SX−403RDS and SX−303RDS only)	ACG1002
	C709 (0.01/AC150V)	ACG1005
	C707 (0.047F/5.5)	ACH1135
	C701, C702 (8200/50) (For SX−403RDS)	ACH1265
	C701, C702 (6800/50) (For SX−303RDS)	ACH1105
	C701, C702 (5600/50) (For SX−203RDS)	ACH1266
	C542 (SX−403RDS and SX−303RDS only)	CCCSL100C50
	C525, C526	CCCSL050C500
	C551−C554	CCCSL101K500
	C523, C524	CCCSL120K500
	C503, C504	CCCSL151J50
	C403, C404	CCCSL271J50
	C411, C412 (SX−403RDS only)	CCPUSL220J50
	C541 (SX−403RDS and SX−303RDS only)	CCPUSL470J50
	C200	CEAS010M50
	C231, C232	CEAS100M50
	C235, C236, C603, C711	CEAS101M16
	C703	CEAS102M35
	C713	CEAS220M50
	C241, C242, C251, C252	CEAS2R2M50
	C543, C544 (SX−403RDS only)	CEAS2R2M50
	C621, C622	CEAS2R2M50
	C753 (SX−403RDS and SX−303RDS only)	CEAS470M10
	C752 (SX−403RDS and SX−303RDS only)	CEAS471M25
	C705	CEAS471M35
	C601	CEAS471M6
	C253, C254, C605	CEAS4R7M50
	C521, C522 (For SX−403RDS)	CEEA101M16
	C521, C522 (For SX−303RDS)	CEAS101M16
	C521, C522 (For SX−203RDS)	CEAS470M16
	C501, C502 (For SX−403RDS)	CEEA2R2M50
	C501, C502 (For SX−303RDS and SX−203RDS)	CEAS2R2M50
	C704	CEHAQ220M25
	C712	CEHAQ330M25
	C710	CEHAQ470M10
	C706	CEHAQ470M35
	C520 (For SX−403RDS)	CEXA101M25
	C520 (For SX−303RDS and SX−203RDS)	CEAS101M16
	C561−C564	CFTXA104J50
	C405, C406	CFTXA473J50
	C243−C246, C602	CKCYF103Z50
	C714	CKCYF473Z50
	C751, C755 (For SX−403RDS and SX−303RDS only)	CKCYX104M25
	C505, C506	CKDYB681K50
	C951	CKDYF103Z50
	C250	CKDYX104M25
	C952	CKDYX473M25
	C233, C234, C247, C248	CKPUYB331K50
	C249	CKPUYB471K50
	C239, C240	CQMA242J50
	C237, C238	CQMA822J50

RESISTORS

⚠	R561, R562 (0.33/5W)	ACN−139
	R525, R526	RD1/2PM104J
	R726	RD1/2PM222J
	R752 (SX−403RDS and SX−303RDS only)	RD1/2PM470J
	R631	RD1/4PM100J
	R523, R524	RD1/4PM104J
	R609	RD1/4PM123J
	R701	RD1/4PM302J
	R521, R522 (For SX−403RDS)	RD1/4PM911J
	R521, R522 (For SX−303RDS)	RD1/4PM102J
	R521, R522 (For SX−203RDS)	RD1/4PM122J
⚠	R563−R566	RD1/4PMF100J
⚠	R555−R558, R625	RD1/4PMF101J
⚠	R621, R622	RD1/4PMF472J
⚠	R527, R528	RD1/4PMF680J
⚠	R535, R536, R551−R554	RFA1/4PS101J
⚠	R723	RFA1/4PS151J
⚠	R724	RFA1/4PS220J
⚠	R509−R512	RFA1/4PS4R7J
⚠	R703, R704, R725	RS2LMF102J
⚠	R751 (SX−403RDS and SX−303RDS only)	RS2LMF221J
	R706, R707 (For SX−403RDS and SX−303RDS)	RS2LMF272J
	R706, R707 (For SX−203RDS)	RS2LMF222J
	R412 (SX−403RDS only)	RD1/8PM473J
	R414 (SX−403RDS only)	RD1/8PM475J
	R541, R542 (SX−403RDS and SX−303RDS only)	RD1/8PM104J
	R543, R544 (For SX−403RDS)	RD1/8PM911J
	R543, R544 (For SX−303RDS)	RD1/8PM102J
	Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		PIN JACK 6P (PHONO, CD, VCR)	AKB1121
		PIN JACK 8P (TAPE1 PLAY/REC, TAPE2 PLAY/REC)	AKB1127
		SPEAKER TERMINAL 8-P	AKE-111
		JACK (CONTROL OUT) (SX-403RDS and SX-303RDS only)	AKN-207
	CN700	AC INLET (1P)	AKP1132
		CABLE HOLDER (9P)	AKT1082
		HEAT SINK	ANH-575
		SCREW	BBZ30P080FMC
	CN302	12P PLUG	KM200IA12

FRONT ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC300		NJM4558DXP
	IC801		PDG114A
	Q301, Q302		2SC2458
	Q805	(SX-403RDS and SX-303RDS only)	2SC2458
	Q802	(SX-403RDS and SX-303RDS only)	DTA143ES
	Q801		DTC124ES
	Q804	(SX-403RDS and SX-303RDS only)	DTC124ES
	Q803	(SX-403RDS and SX-303RDS only)	DTC143ES
	D802	(SX-403RDS and SX-303RDS only)	1SS252
	D803-D807		1SS252
	D821	(RED)	AEL1148

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S801-S825, S827-S829		ASG1029
	S826	(SX-403RDS and SX-303RDS only)	ASG1029

CAPACITORS

Mark	No.	Description	Parts No.
	C343, C344		CCDSL151J50
	C349, C350		CEAS100M50
	C351, C352, C802		CEJA0R1M50
	C809		CEJA100M50
	C803		CEJA221M10
	C341, C342		CEJA470M16
	C347, C348, C801		CEJAR47M50
	C345, C346		CFTXA153J50
	C811		CKDYX104M25
	C813-C815		CKPUYB101K50
	C807		CKPUYB102K50
	C804, C850		CKPUYF103Z25
	C805, C816		CKPUYF473Z16
	C812	(SX-403RDS and SX-303RDS only)	CKPUYF473Z16

RESISTORS

Mark	No.	Description	Parts No.
	VR303	(500k-B)	ACS1016
	VR301, VR302	(30k-B5 × 2)	ACS1106
	VR361	(SX-203RDS only)	ACT1071
	R825		RD1/4PM221J
	R365, R366	(SX-203RDS only)	RD1/8PM102J
	R373, R374	(SX-203RDS only)	RD1/8PM682J
	R811, R812, R824	(SX-403RDS and SX-303RDS only)	RD1/8PM472J
	R821	(SX-403RDS and SX-303RDS only)	RD1/8PM473J
	R823	(SX-403RDS and SX-303RDS only)	RD1/8PM562J
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	V801	FL TUBE	AAV1195
		CABLE HOLDER (3P) (For SX-403RDS and SX-303RDS)	AKT1076
	X801	(7.70MHZ)	ASS1055
		REMOTE RECEIVER UNIT (SX-403RDS and SX-303RDS only)	AXX1023

VR ASSY (SX-403RDS and SX-303RDS only)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC361		TA8409S
	Q371, Q372	(SX-403RDS only)	2SK246
	D371, D372	(SX-403RDS only)	1SS252

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L361, L362		LAU101K

CAPACITORS

Mark	No.	Description	Parts No.
	C371, C372	(SX-403RDS only)	CCPUSL220J50
	C361		CEAS470M16
	C362, C363		CKPUYF473Z16

RESISTORS

Mark	No.	Description	Parts No.
	VR361	(100k-A5 × 2)	ACX1069
	R372	(SX-403RDS only)	RD1/8PM475J
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		CABLE HOLDER (3P)	AKT1076

POWER SW ASSY (SX-203RDS only)

CAPACITORS

Mark	No.	Description	Parts No.
	C651	(0.01/AC400V)	ACG1003

SWITCHES AND RELAYS

Mark	No.	Description	Parts No.
	S651		ASG1035

FM/AM TUNER MODULE

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC6201		LA1836M
	IC6202		LM7001J
	Q6102		2SC2223
	Q6203		2SC2235
	Q6202		2SC2712
	Q6103, Q6214		2SC2714
	Q6201		2SK208
	Q6104, Q6105		2SK302
	Q6101		3SK194
	Q6204		XDA124EK
	Q6215, Q6217		XDC124EK
	D6101, D6102, D6104		1SV228
	D6201		HVU187

COILS AND FILTERS

Mark	No.	Description	Parts No.
	L6106		ATC1003
	L6101		ATC1016
	L6102		ATC1017
	L6103		ATC1018
	L6104		ATC1019

Mark	No.	Description	Parts No.
	T6101		ATE−063
	L6207	(F=10.7MHZ)	ATE1013
	F6204		ATF−107
	F6203		ATF−119
	F6202	(F=450KHZ)	ATF1155
	L6107		ATH1043
	L6209		LCTA221J3225
	L6201, L6202, L6203, L6208		LCTA2R2J3225

CAPACITORS

	C6234, C6236, C6254, C6269		ACG1051
	C6235		ACG1052
	C6120		CCSCH060D50
	C6229		CCSCH821J50
	C6111		CCSQCH010C50
	C6112, C6122		CCSQCH020C50
	C6118		CCSQCH080D50
	C6113, C6203		CCSQCH101J50
	C6116, C6208, C6221, C6222		CCSQCH150J50
	C6117		CCSQCH330J50
	C6105		CCSQSL471J50
	C6101		CCSQTH110J50
	C6119		CCSQTH150J50
	C6106, C6107		CCSQTH270J50
	C6262		CEAS100M50
	C6231, C6233		CEAS3R3M50
	C6216, C6217		CEAS330M16
	C6219		CEAS470M10
	C6243, C6244, C6245		CEAS470M16
	C6227		CEAS470M25
	C6246		CEEA100M50
	C6224		CEEA101M25
	C6261		CEJA010M50
	C6238		CEJA100M16
	C6249, C6250		CEJA4R7M35
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6125, C6204, C6207		CKSQYB102K50
	C6102, C6114, C6115, C6121, C6124		CKSQYB103K50
	C6210, C6253, C6264		CKSQYB103K50
	C6213		CKSQYB223K50
	C6230		CKSQYB273K50
	C6228		CKSQYB472K50
	C6209, C6237		CKSQYB473K50
	C6251, C6252		CKSQYB682K50
	C6212, C6218		CKSQYF103Z50
	C6220, C6226, C6239, C6242, C6255		CKSQYF223Z50
	C6241		CKSQYF473Z50
	C6123		CKSYB103K50
	C6232		CKSYB273K50
	C6223		CKSYF103Z50
	C6263		CKSYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	VR6201	(10k)	ACP1056
	VR6202		VRTB6VS223
	R6299, R6300		RD1/8PM102J
	R6115, R6119, R6123, R6127, R6268		RS1/8S000J
	R6269−R6273, R6275, R6276, R6278		RS1/8S000J
	R6283, R6284, R6289, R6290, R6293		RS1/8S000J
	R6294, R6297, R6303		RS1/8S000J
	R6243, R6244		RS1/8S101J
	R6211		RS1/8S103J
	R6247		RS1/8S152J
	R6237		RS1/8S182J
	R6209		RS1/8S221J
	R6239		RS1/8S332J
	R6112		RS1/8S473J
	Other Resistors		RS1/10S□□□J

OTHERS

		2P TERMINAL WITH PAL	AKA1017
	X6203	(7.200MHZ)	ASS1042
	X6201	(456kHZ)	ASS1066
	X6202	(450kHZ)	ATF1027
		AM RF TUNING BLOCK	AXX1041

5. ADJUSTMENTS

■ FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center Adjustment	98 Non modulation	80 or more	98MHz	L6207	Adjust so that the DC voltage between Pin 4 and Pin 28 (or ⊕ leads of C6224 and C6261) of IC6201 becomes 0V±50mV.
2	Front End Sensitivity	98	10–30	98MHz	L6104 L6105*1 L6102 T6101	Adjust so that the DC voltage between Pin12 (or ⊕ leads of C6238) of IC6201 (S-meter) and GND becomes at maximum level.
3	TUNED IND. Lighting Level	98	15±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.
4	SK Level Adjustment	88 EXTERNAL *2 (RDS SG)	60	88MHz NORMAL (RF ATT ON)	VR901	Adjust so that the output level 57kHz between TP901 and GND becomes maximum.

*1 : HEWZXK type only
*2 : RDS SG (AUDIO, PILOT, RDS, BK and DK: OFF, SK: ON)

Notes:

- *Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM → FM.*

■ AM TUNER SECTION

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting Level	999	47±2	999kHz	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

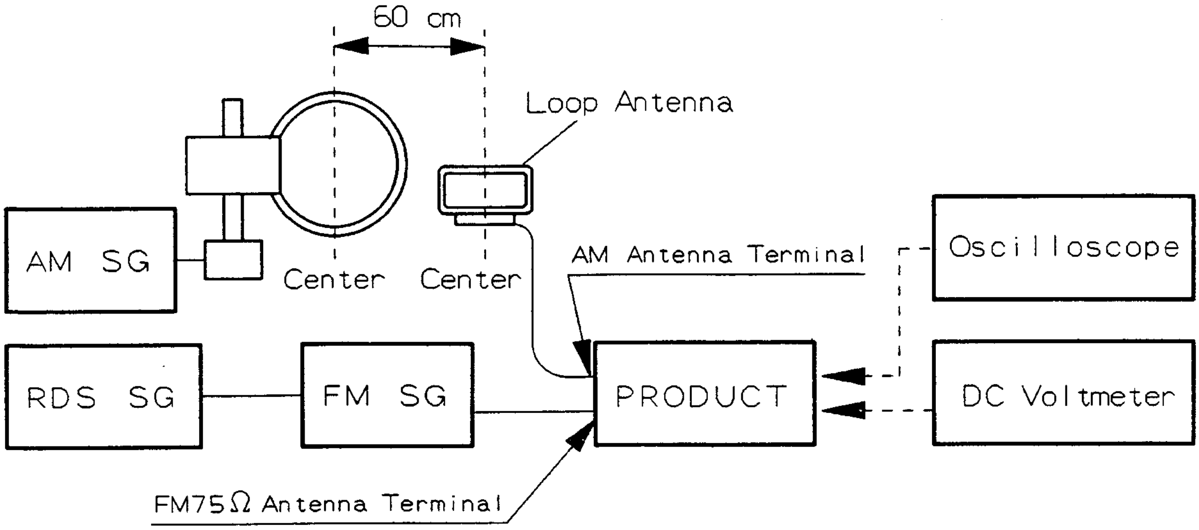
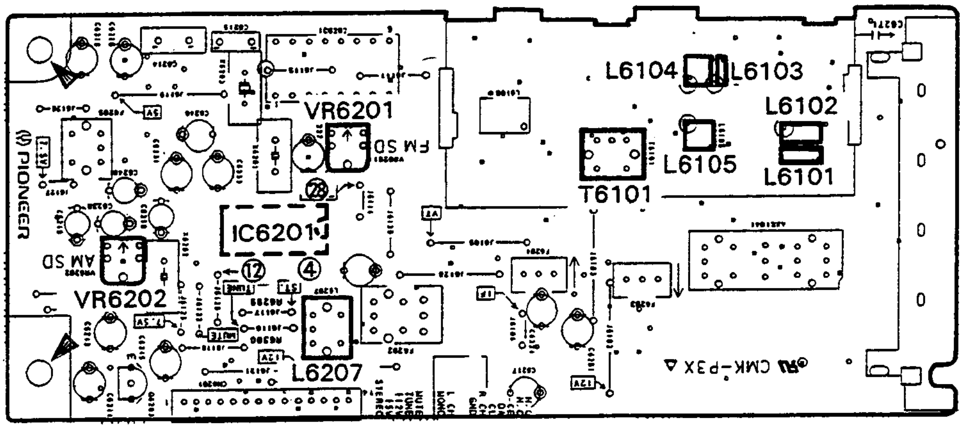

60 cm
Loop Antenna
AM SG
Center
Center
AM Antenna Terminal
Oscilloscope
RDS SG
FM SG
PRODUCT
DC Voltmeter
FM75Ω Antenna Terminal

Fig. 1 FM and AM Adjustment Wiring Diagram

FM/AM TUNER MODULE


L6104
L6103
L6102
L6105
L6101
T6101
VR6201
FM SD
AM SD
VR6202
IC6201
⑫
④
㉓
L6207
PIONEER
CMK-P3X

RDS Assy

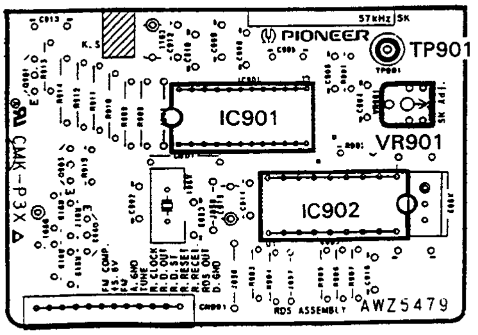
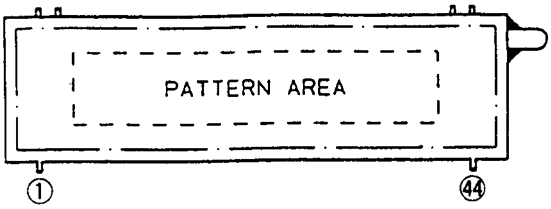

PIONEER
TP901
IC901
VR901
IC902
CMK-P3X
RDS ASSEMBLY
AWZ5479

Fig. 2 Adjustment Points

6. FL INFORMATION

●AAV1195(V801)

PIN LOCATION

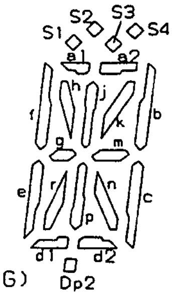

PATTERN AREA
①
㊹

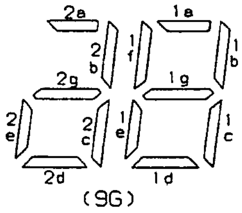
PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
CONNECTION	F1	F1	NP	NP	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NC	NC	P24	P23	P22	P21	P20	P19

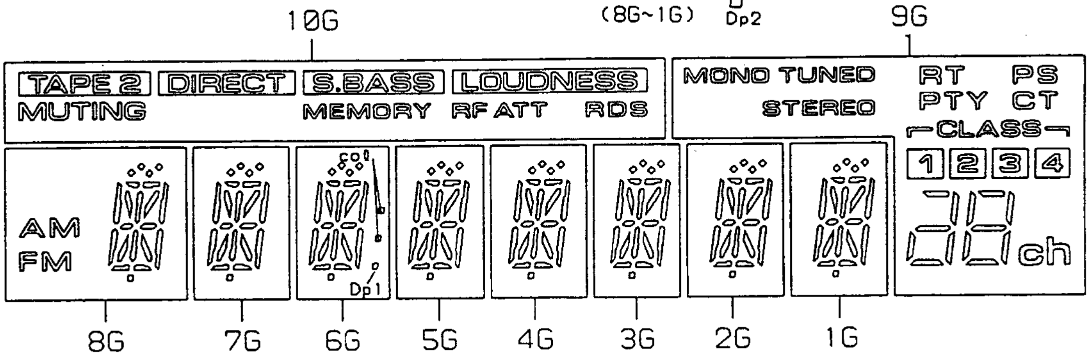
PIN NO.	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
CONNECTION	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F2	F2

NOTE 1) F1,F2 --- Filament
2) NP ------- No pin
3) NC ------ No connection
4) DL ------ Datum Line
5) 1G~10G --- Grid


S1
S2
S3
S4
a1
a2
h
j
f
k
b
g
m
e
r
n
c
p
d1
d2
Dp2
(8G~1G)


2a
1a
2b
1f
1b
2g
1g
2e
2c
1e
1c
2d
1d
(9G)

GRID ASSIGNMENT


10G
9G
TAPE 2
DIRECT
S.BASS
LOUDNESS
MUTING
MEMORY
RF ATT
RDS
MONO
TUNED
STEREO
RT
PS
PTY
CT
CLASS
1
2
3
4
ch
AM
FM
col
Dp1
8G
7G
6G
5G
4G
3G
2G
1G

ANODE CONNECTION

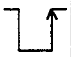
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	-	TUNED	S1	S1	S1	S1	S1	S1	S1	S1
P2	-	STEREO	S2	S2	S2	S2	S2	S2	S2	S2
P3	-	2	S4	S4	S4	S4	S4	S4	S4	S4
P4	-	3	S3	S3	S3	S3	S3	S3	S3	S3
P5	MEMORY	MONO	a1	a1	a1	a1	a1	a1	a1	a1
P6	RF ATT	4	a2	a2	a2	a2	a2	a2	a2	a2
P7	-	⌐CLASS¬	h	h	h	h	h	h	h	h
P8	-	1	j	j	j	j	j	j	j	j
P9	TAPE 2	2b	b	b	b	b	b	b	b	b
P10	-	RT	k	k	k	k	k	k	k	k
P11	MUTING	1a	g	g	g	g	g	g	g	g
P12	LOUDNESS	1b	f	f	f	f	f	f	f	f
P13	-	2c	m	m	m	m	m	m	m	m
P14	-	CT	c	c	c	c	c	c	c	c
P15	-	PTY	p	p	p	p	p	p	p	p
P16	-	PS	r	r	r	r	r	r	r	r
P17	-	1g	n	n	n	n	n	n	n	n
P18	S.BASS	1e	d1	d1	d1	d1	d1	d1	d1	d1
P19	DIRECT	1c	e	e	e	e	e	e	e	e
P20	RDS	1d	d2	d2	d2	d2	d2	d2	d2	d2
P21	-	1f	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2
P22	-	ch	AM	-	col	-	-	-	-	-
P23	-	2a, 2d, 2g	FM	-	Dp1	-	-	-	-	-
P24	-	2e	-	-	-	-	-	-	-	-

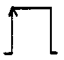
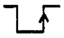
7. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDG114A (IC801)
CONTROL MICROCOMPUTER

●Pin Function

No.	NAME	I/O	FUNCTION	ACT
1	RDS DATA	I	Data from LC7073 input	—
2	REMOCON	I	Remote control signal input	—
3	RDS DATA START	I	Synchronizing signal of each block from LC7073 input	—
4	RDS RESET	O	Reset signal output to LC7073 when receiving frequency converted	
5	FM	O	FM BAND select output	H
6	RF ATT	O	RF ATT ON/OFF output	H
7	MONO	O	FM MONO output	H
8	TUNE	I	TUNE indicator signal input	L
9	STEREO	I	STEREO indicator signal input	L
10	RDS RECEIVE	I	Signal showing RDS station or not input	L
11	DIRECT	O	DIRECT ON/OFF (Receiver only) *1	H
12	LW be or not	I	L: LW not being H: LW being (Tuner only) *1	—
13	LOUDNESS	O	LOUDNESS ON/OFF (Receiver only) *1	H
14	K10	I	KEYSCAN input 0	H
15	K11	I	KEYSCAN input 1	H
16	K12	I	KEYSCAN input 2	H
17	K13	I	KEYSCAN input 3	H
18	K14	I	KEYSCAN input 4	H
19	RECEIVER/ TUNER	I	Change-over of RECEIVER/ TUNER (L: Tuner H: Receiver)	—
20	K15	I	KEYSCAN input 5 (Receiver only) *1	H
21	K16	I	KEYSCAN input 6 (Receiver only) *1	H
22	REMOCON be or not	I	Change-over of destination (Receiver only) *1	H

No.	NAME	I/O	FUNCTION	ACT
23	NC		Not used	H
24	FUNCTION ST	O	Change-over of FUNCTION IC (TC9164N) Strove (Receiver only) *1	
25	MUTE	O	TUNER, MUTE control output	H
26	VOL UP	O	VOLUME UP output	H
27	VOL DOWN	O	VOLUME DOWN output	H
28	Rotary input	O	Rotary encoder input A (Tuner only) *1	H
29	Rotary input	O	Rotary encoder input B (Tuner only) *1	H
30	$\overline{\text{RST}}$	I	Reset input	
31	EX' TAL		Connecting 7.7 MHz oscillation crystal between pins	—
32	X' TAL			—
33	Vss		GND standard electric potential	—
34	NC		Not used	—
35	FL AC	O	FL AC ON/OFF	L
36	POWER	O	POWER ON/OFF	H
37	Seg 17	O	Segment indication output	H
38	Seg 18	O		
39	Seg 20	O		
40	Seg 19	O		
41	Seg 1	O		
42	Seg 2	O		
43	Seg 10	O		
44	Seg 11	O		
45	Seg 3	O		
46	Seg 12	O		
47	K00/S9	O	Segment indication output / KEYSCAN output	H

No.	NAME	I/O	FUNCTION	ACT
48	K01/S8	O	Segment indication output / KEYSCAN output	H
49	K02/S13	O		
50	K03/S4	O		
51	K04/S15	O		
52	Seg 16	O	Segment indication output	H
53	Seg 14	O		
54	Seg 6	O		
55	Seg 7	O		
56	Seg 5	O		
57	Seg 21	O		
58	Seg 22	O		
59	Seg 23	O		
60	Seg 24	O	Segment indication output (Receiver only) *1	H
61	R: G 1 T: G 10	O	Grid FL indication output	H
62	R: G 2 T: G 9	O		
63	R: G 3 T: G 8	O		
64	R: G 4 T: G 7	O		
65	R: G 5 T: G 6	O		
66	R: G 6 T: G 1	O		
67	R: G 7 T: G 2	O		
68	R: G 8 T: G 3	O		
69	R: G 9 T: G 4	O		
70	R: G 10 T: G 5	O		

No.	NAME	I/O	FUNCTION	ACT
71	–VFDP		Electric potential for FL display (–30 V)	—
72	VDD		+5 V Power source input	—
73	NC		+5 V Power source input	—
74	TEST	I	TEST MODE judgement input	H
75	PLL_DT	O	PLL communication data output (LM7001) and change-over function (TC9164N)	—
76	PLL_CK	O	PLL communication clock output (LM7001) and change-over function (TC9164N)	—
77	PLL_CE	O	PLL communication chip enable output (LM7001)	H
78	RDS_CK	I	Each bit from LC7073 synchronizing clock input	—
79	AC	I	WAKE • UP AC pulse input	—
80	RDS_OUT	I	Judging RDS signals output or not	L

*1 : Functions will be changed according to setting (L or H) of Pin 19.

8. FOR SX−403RDS/HEWZXK, SX−303RDS/HBXK, HEWZXK, SX−203RDS/HBXK AND HEWZXK TYPES

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

CONTRAST OF MISCELLANEOUS PARTS FOR SX−403RDS

SX−403RDS/HEWZXK and HEXK have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		HEXK Type	HEWZXK Type	
NSP	AF COMPLEX assy	AWK1819	AWK1820	
	AF assy	AWZ5488	AWZ5491	
	TRANS assy	AWZ5480	AWZ5490	
	SP SW assy	AWZ5478	AWZ5483	
	FM/AM TUNER MODULE	AXQ3227	AXQ3228	
	Ceramic capacitor (C2)	....	CCDSL820J50	*
	Serial sheet	....	AAX1523	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	....	
	Operating instructions (German)	....	ARC1480	

* : *Refer to page 4.*

CONTRAST OF MISCELLANEOUS PARTS FOR SX−303RDS

SX−303RDS/HBXK, HEWZXK and HEXK have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		HEXK Type	HBXK Type	HEWZXK Type	
NSP	AF COMPLEX assy	AWK1817	AWK1841	AWK1818	
	AF assy	AWZ5484	AWZ5623	AWZ5487	
	TRANS assy	AWZ5480	AWZ5480	AWZ5490	
	SP SW assy	AWZ5478	AWZ5478	AWZ5483	
	FM/AM TUNER MODULE	AXQ3227	AXQ3227	AXQ3228	
	Ceramic capacitor (C2)	....	....	CCDSL820J50	*
⚠	AC power cord	ADG1135	ADG1143	ADG1135	
	Serial sheet	....	....	AAX1523	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	....	....	
	Operating instructions (English)	....	ARB1480	....	
	Operating instructions (German)	....	....	ARC1480	

* : *Refer to page 4.*

CONTRAST OF MISCELLANEOUS PARTS FOR SX－203RDS

SX－203RDS/HBXK, HEWZXK and HEXK have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		HEXK Type	HBXK Type	HEWZXK Type	
NSP	AF COMPLEX assy	AWK1815	AWK1840	AWK1816	
	AF assy	AWZ5476	AWZ5622	AWZ5482	
	TRANS assy	AWZ5480	AWZ5480	AWZ5490	
	SP SW assy	AWZ5478	AWZ5478	AWZ5483	
	FM/AM TUNER MODULE	AXQ3227	AXQ3227	AXQ3228	
	Ceramic capacitor (C2)	....	....	CCDSL820J50	*
⚠	AC power cord	ADG1135	ADG1143	ADG1135	
	Serial sheet	....	....	AAX1523	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	....	....	
	Operating instructions (English)	....	ARB1480	....	
	Operating instructions (German)	....	....	ARC1480	

* : *Refer to page 4.*

AF ASSY (For SX－403RDS)

AWZ5491 and AWZ5488 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5488	AWZ5491	
⚠	L751	....	ATF－151	
	L981－L984	....	ATH－133	
	C201, C202	....	CKPUYB181K50	
	C203－C210, C213－C224	....	CKPUYB391K50	
	C211, C212	....	CKPUYB821K50	
	C527, C528	....	CKPUYB331K50	
	C555, C556	....	CKDYB103K500	
	C981, C982	....	CKDYB471K50	
	C983, C984, C987, C988	....	CFTXA473J50	
	C985, C986	....	CKDYF103Z50	
	C991－C994	....	CCDSL560J50	
	R211, R212	RD1/8PM331J	RD1/8PM102J	
⚠	R563, R564	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	....	RD1/4PMF100J	

AF ASSY (For SX−303RDS)

AWZ5623, AWZ5487 and AWZ5484 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ5484	AWZ5623	AWZ5487	
⚠	RY751	ASR1044	ASR1027	ASR1044	
⚠	L751	....	....	ATF−151	
	L981−L984	....	....	ATH−133	
	C201, C202	....	....	CKPUYB181K50	
	C203−C210, C213−C224	....	....	CKPUYB391K50	
	C211, C212	....	....	CKPUYB821K50	
	C527, C528	....	....	CKPUYB331K50	
	C555, C556	....	....	CKDYB103K500	
	C981, C982	....	....	CKDYB471K50	
	C983, C984, C987, C988	....	....	CFTXA473J50	
	C985, C986	....	....	CKDYF103Z50	
	C991−C994	....	....	CCDSL560J50	
	R211, R212	RD1/8PM331J	RD1/8PM331J	RD1/8PM102J	
⚠	R563, R564	RD1/4PMF100J	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	....	....	RD1/4PMF100J	
	CN700 AC inlet (1P)	AKP1132	AKP1133	AKP1132	

AF ASSY (For SX−203RDS)

AWZ5622, AWZ5482 and AWZ5476 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ5476	AWZ5622	AWZ5482	
⚠	L751	....	....	ATF−151	
	L981−L984	....	....	ATH−133	
	C201, C202	....	....	CKPUYB181K50	
	C203−C210, C213−C224	....	....	CKPUYB391K50	
	C211, C212	....	....	CKPUYB821K50	
	C527, C528	....	....	CKPUYB331K50	
	C555, C556	....	....	CKDYB103K500	
	C981, C982	....	....	CKDYB471K50	
	C983, C984, C987, C988	....	....	CFTXA473J50	
	C985, C986	....	....	CKDYF103Z50	
	C991−C994	....	....	CCDSL560J50	
	R211, R212	RD1/8PM331J	RD1/8PM331J	RD1/8PM102J	
⚠	R563, R564	RD1/4PMF100J	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	....	....	RD1/4PMF100J	
	CN700 AC inlet (1P)	AKP1132	AKP1133	AKP1132	

FM/AM TUNER MODULE

AXQ3228 and AXQ3227 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AXQ3227	AXQ3228	
	Q6218	....	2SC2712	
	D6103	....	1SV228	
	F6205	....	ATF1152	
	L6105	....	ATC1015	
	L6205	....	LCTA680J3225	
	C6106	CCSQTH270J50	CCSQTH330J50	
	C6107	CCSQTH270J50	CCSQTH300J50	
	C6109	....	CCSQTH270J50	
	C6110	....	CCSQTH300J50	
	C6115	CKSQYB103K50	CKSQYB102K50	
	C6122	CCSQCH020C50	CCSQCH010C50	
	C6126	....	CKSQYB102K50	
	C6203	CCSQCH101J50	....	
	C6204	CKSQYB102K50	ACG1051	
	C6229	CCSCH821J50	CCSCH102J50	
	C6247	....	CKSQYB122K50	
	C6248	....	CEEA100M50	
	C6251, C6252	CKSQYB682K50	CKSQYB562K50	
	C6256	....	CKSQYF223Z50	
	C6267	....	CKSQYB473K50	
	C6272	....	CCSQSL330J50	
	R6114	....	RS1/10S473J	
	R6122	RS1/10S472J	RS1/10S332J	
	R6129, R6302	....	RS1/8S000J	
	R6131, R6308	RS1/10S000J	....	
	R6232	....	RS1/10S134J	
	R6233	....	RS1/10S513J	
	R6234	....	RS1/10S222J	
	R6235	....	RS1/10S132J	
	R6236	....	RS1/10S472J	
	R6237	RS1/8S182J	RS1/8S122J	
	R6238	RS1/10S182J	RS1/10S122J	
	R6239	RS1/8S332J	RS1/8S103J	
	R6240	RS1/10S332J	RS1/10S103J	
	R6251	RS1/10S620J	RS1/10S680J	
	R6290	RS1/8S000J	....	

TRANS ASSY

AWZ5490 and AWZ5480 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5480	AWZ5490	
	C101	CQMXA103J100	CQMXA473J100	

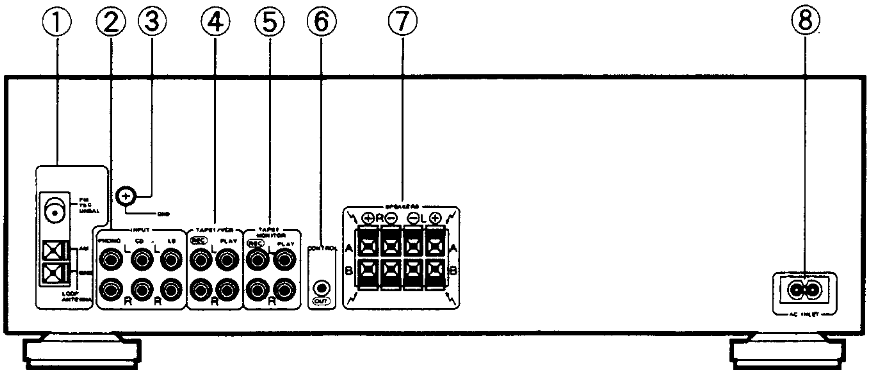
SP SW ASSY

AWZ5483 and AWZ5478 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5478	AWZ5483	
	C571, C572	....	CKDYB222K50	
	C573, C574	....	CCDSL101J50	

9. PANEL FACILITIES

9.1 REAR PANEL FACILITIES



- The illustration shows SX-403RDS.

① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② INPUT jacks

PHONO ···············	Connect to the output cables from a turntable.
CD ···········	Connect to the output jacks of a compact disc player.
LD ························	Connect to the output jacks of a LD player.

③ GND terminal

Connect to the ground lead of a turntable.
Use a screwdriver to connect with the ground terminal.

④ TAPE 1/VCR jacks

Connect these jacks to the cassette deck or video cassette recorder.

⑤ TAPE 2 MONITOR jacks

Connect these jacks to the cassette deck.

⑥ CONTROL OUT jacks (SX-403RDS and SX-303RDS)

Connect this jack to other Pioneer components bearing the SR mark when using the remote control of this unit to control the other components.

① To the CONTROL IN jack of other component.
② Receiver
③ Pioneer component bearing the SR mark.
④ Remote control unit.

⑦ SPEAKERS terminals

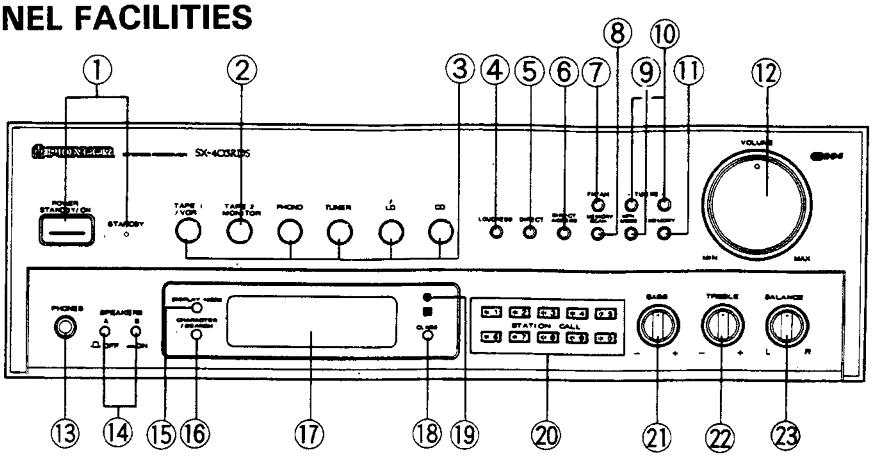
A: Connect to a first set speakers.
B: Connect to a second set of speakers.

NOTE:
No sound will be heard through the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑧ AC INLET

Connect the power cord first to the unit, then plug it into the AC wall outlet.

9.2 FRONT PANEL FACILITIES



- The illustration shows SX-403RDS.

① POWER (STANDBY/ON) switch/STANDBY indicator (SX-403RDS, SX-303RDS)

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain opetation readiness.

- The accessory remote control unit can also be used to operate STANDBY/ON.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for approx. 5 seconds.

① POWER switch/indicator (SX-203RDS)

When this switch is pressed, the indicator showing power is being supplied lights up.
Press the switch again to turn power OFF.
[Timer ON/OFF possible]
When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for approx 5 seconds.

② TAPE 2 MONITOR button

Press when listening to tape playback with the cassette deck 2.

③ Function buttons

Use to select playback source.

[TAPE 1/VCR] – Press when listening to tape playback with the cassette deck 1 or video cassette recorder.
[PHONO] – Press when listening to record playback on a turntable.
[TUNER] – Press when listening to AM or FM broadcasts with a tuner.
[LD] – Press when listening to laser disc with a laser disc player.
[CD] – Press when listening to compact disc playback with a CD player.

④ LOUDNESS button

Use when listening at low volume levels.

ON: Boosts low and high frequencies to produce a fuller sense of sound, particularly at low volume levels.
OFF: Normal position.

NOTE:
This button does not operate when the DIRECT button is in the ON position (SX-403RDS).

⑤ DIRECT button (SX-403RDS)

Use this button when you do not wish to pass the output from input terminal through the various frequency adjusting circuits (TREBLE, BASS and LOUDNESS). When this button is on, the BALANCE control does not operate.

⑤ RF ATT button (SX-303RDS/SX-203RDS)

Set this button to ON when receiving strong FM signals (near-by stations) to reduce sound distortion.
Normally, this button should be set to OFF.
This button has no effect on reception of AM broadcasts.

NOTE:
This button's status is preset for each station in station memory.

⑥ DIRECT ACCESS tuning button

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.

⑦ FM/AM selector button

This button is used to select either AM or FM reception.

⑧ MEMORY SCAN button

This button is used for station memory scan.
MEMORY SCAN is not executed at the time of SLEEP timer operation.

⑨ MPX MODE selector button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator is lighted.

Auto stereo mode:
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.

Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This button has no effect on reception of AM broadcasts.

⑩ TUNING buttons (−, +)

Use for tuning. Press the buttons to change the frequency display (3-speed Accel Tuning)

In the Manual Name input mode and PTY search mode, use to select characters and program types.

⑪ MEMORY button

When the unit is in the frequency display mode, pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.

NOTE:

The MEMORY button does not function during SLEEP timer operation.

⑫ VOLUME control

Use to adjust volume level.

⑬ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

⑭ SPEAKERS (■ OFF, ▬ ON) buttons

These are used to select the speaker through which you wish to listen.

A: When the speakers connected to A terminals are in use.

B: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to OFF position when only the headphones are in use.

NOTE:

No sound will be heard through the speakers when both A and B buttons are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑮ DISPLAY MODE button

Use only during FM reception. Use this to switch between display modes. Each time you press it, the display changes as follows.

→ RT mode
↓ Displays PS → RT → Returns to PS.
PS mode
↓
PTY mode
↓
FREQ (Frequency) mode

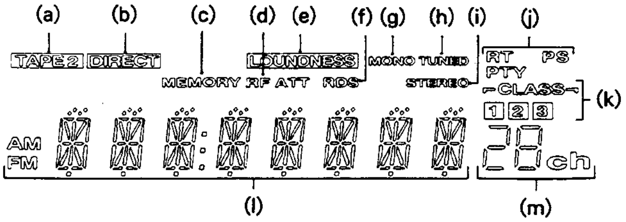
- This button does not function when the SLEEP button of the remote control unit is ON.

⑯ CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, PS modes:
Press the button, "INPUT" is displayed, and the mode switches to manual station name input.

When in the FM PTY mode:
Press the button, "SEARCH" is displayed, and the mode switches to program type search.

- This button does not function when the SLEEP button of the remote control unit is ON. This button does not function at the time of frequency mode.



⑰ OPERATION DISPLAY panel

(a) TAPE 2 monitor indicator
(b) DIRECT indicator (SX-403RDS)
(c) MEMORY indicator
(d) RF ATT indicator
(e) LOUDNESS indicator
(f) RDS indicator
(g) MONO indicator
(h) TUNED indicator
(i) STEREO indicator
(j) RT, PS, PTY indicator
(k) CLASS indicator
(l) Frequency, function, character display
(m) Channel display

⑱ CLASS button

Use to switch between preset memory classes 1 to 3. In each class, one station can be memorized in each of the 1 to 10 STATION CALL buttons, enabling a total of 30 stations to be memorized.

⑲ Remote sensor

⑳ STATION CALL buttons

These buttons are used to preset and recall desired broadcasting stations and direct access tuning.

㉑ BASS tone control

Use to adjust the low-frequency tone. The center position is the flat(normal) posion. When tuned to the right, low-frequency tones are emphasized.

NOTE:

This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

㉒ TREBLE tone control

Use to adjust high-frequency tone. The center position is the flat(normal) position. When tuned to the right, high-frequency tones are emphasized.

NOTE:

This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

㉓ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the rights side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

NOTE:

This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

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